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Section 1

General Information

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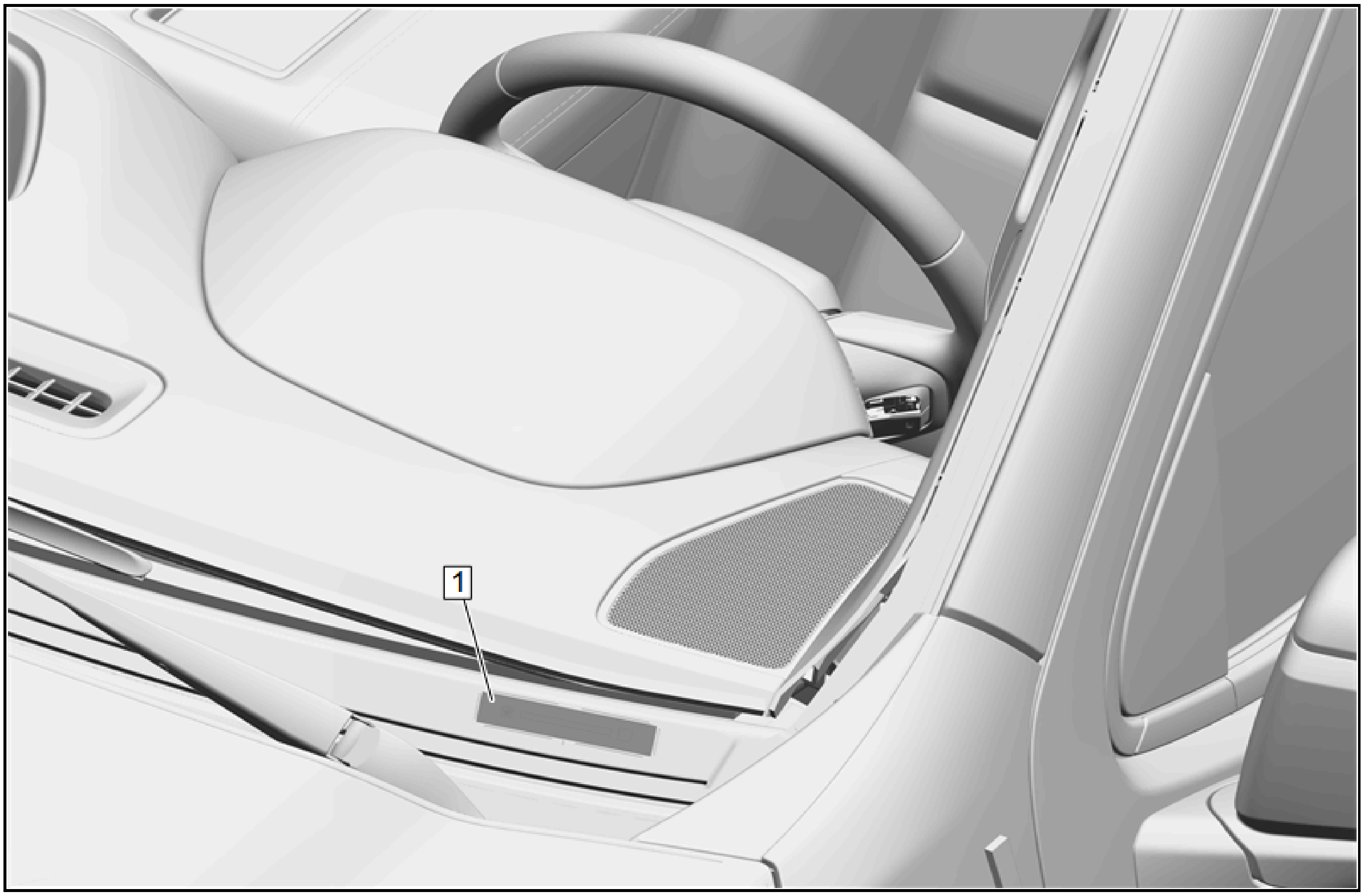
General Information

Introduction

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage



The vehicle identification number (VIN) plate (1) is the legal identifier of the vehicle. The VIN plate is located on the upper left corner of the instrument panel. The VIN number can be seen through the windshield from the outside of the vehicle:

Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Country of Origin	1	United States
		3	Mexico
2	Manufacturer	G	General Motors
3	Vehicle Brand/Type	B	Chevrolet Incomplete
		C	Chevrolet Truck
4	GVWR/Brake System/Body Style	N	6,001–7,000 lbs/Hydraulic/Standard Cab
		P	6,001–7,000 lbs/Hydraulic/Crew Cab
		R	6,001–7,000 lbs/Hydraulic/Extended Cab
		U	7,001–8,000 lbs/Hydraulic/Crew Cab
		V	7,001–8,000 lbs/Hydraulic/Extended Cab

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
5/6	Line Chassis/Series	W/A	4x2, 1500 Chevrolet Silverado, Work Truck
		W/B	4x2, 1500 Chevrolet Silverado, Custom
		W/C	4x2, 1500 Chevrolet Silverado, LT
		W/D	4x2, 1500 Chevrolet Silverado, RST
		W/E	4x2, 1500 Chevrolet Silverado, LTZ
		W/F	4x2, 1500 Chevrolet Silverado, High Country
		W/L	4x2, 2500 Chevrolet Silverado Work Truck
		W/M	4x2, 2500 Chevrolet Silverado Custom
		W/N	4x2, 2500 Chevrolet Silverado LT
		W/P	4x2, 2500 Chevrolet Silverado LTZ
		W/R	4x2, 3500 Chevrolet Silverado Work Truck
		W/S	4x2, 3500 Chevrolet Silverado LT
		W/T	4x2, 3500 Chevrolet Silverado LTZ
		W/9	4x2, 1500 Chevrolet Silverado, (Non-US, Non-Canada)
		Y/A	4x4, 1500 Chevrolet Silverado, Work Truck
		Y/B	4x4, 1500 Chevrolet Silverado, Custom
		Y/C	4x4, 1500 Chevrolet Silverado, Trail Boss Custom
		Y/D	4x4, 1500 Chevrolet Silverado, LT
		Y/E	4x4, 1500 Chevrolet Silverado, RST
		Y/F	4x4, 1500 Chevrolet Silverado, Trail Boss - LT
		Y/G	4x4, 1500 Chevrolet Silverado, LTZ
		Y/H	4x4, 1500 Chevrolet Silverado, High Country
		Y/L	4x4, 2500 Chevrolet Silverado Work Truck 4WD
		Y/M	4x4, 2500 Chevrolet Silverado Custom 4WD
		Y/9	4x4, 1500 Chevrolet Silverado, (Non-US, Non-Canada)
7	Restraint System	E	RPO AY0 – Active Manual Belts, Airbags – Driver and Passenger – Front (1st row), Front Seat Side (1st row), Roof Side (all seating rows)
8	Engine Type	D	RPO L84, Engine Gas, 8 Cylinder, 5.3L, DI, DFM, Aluminum, GEN 5, VAR 2
		F	RPO L82, Engine Gas, 8 Cylinder, 5.3L, DI, AFM, Aluminum, GEN 5, VAR 1
		H	RPO LV3. Engine Gas, 6 Cylinder, 4.3L, GEN 5, SIDI, V6, VVT, OHV, E85 MAX, Aluminum
		K	RPO L3B, Engine Gas, 4 Cylinder, L4, 2.7L, SIDI VVT, Turbo, DOHC, Aluminum
		L	RPO L87, Engine Gas, 8 Cylinder, V8, 6.2L, DI AFM, Aluminum, GEN 5
		T	RPO LM2, Engine Diesel, 6 Cylinder, 3.0L, CRI, V6, DOHC, Turbo, VGT, Aluminum
		Y	RPO L5P - ENGINE DIESEL, 8 CYL, 6.6L, DI, V8, TURBO, DURAMAX, GEN 5 W B: 4x2, 1500 Chevrolet Silverado Custom VAR. 1
		7	RPO L8T - ENGINE GAS, 8 CYL, 6.6L, SIDI, VVT, CAST IRON
9	Check Digit	—	Check Digit
10	Model Year	L	2020

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
11	Plant Location	1	Flint, Michigan, USA
		Z	Fort Wayne, Indiana, USA
		G	Silao, Mexico
12–17	Plant Sequence Number	—	Plant Sequence Number

2.7L (L3B) Engine ID and VIN Derivative Location

Engine Identification

3.0L (LM2) Diesel Engine ID and VIN Derivative Location

Engine Identification

4.3L (LV3) Engine ID and VIN Derivative Location

Engine Identification

5.3L (L82 L84) or 6.2L (L87) Engine ID and VIN Derivative Location

Engine Identification

10L80 (MQB) Transmission ID and VIN Derivative Location

Transmission Identification Information

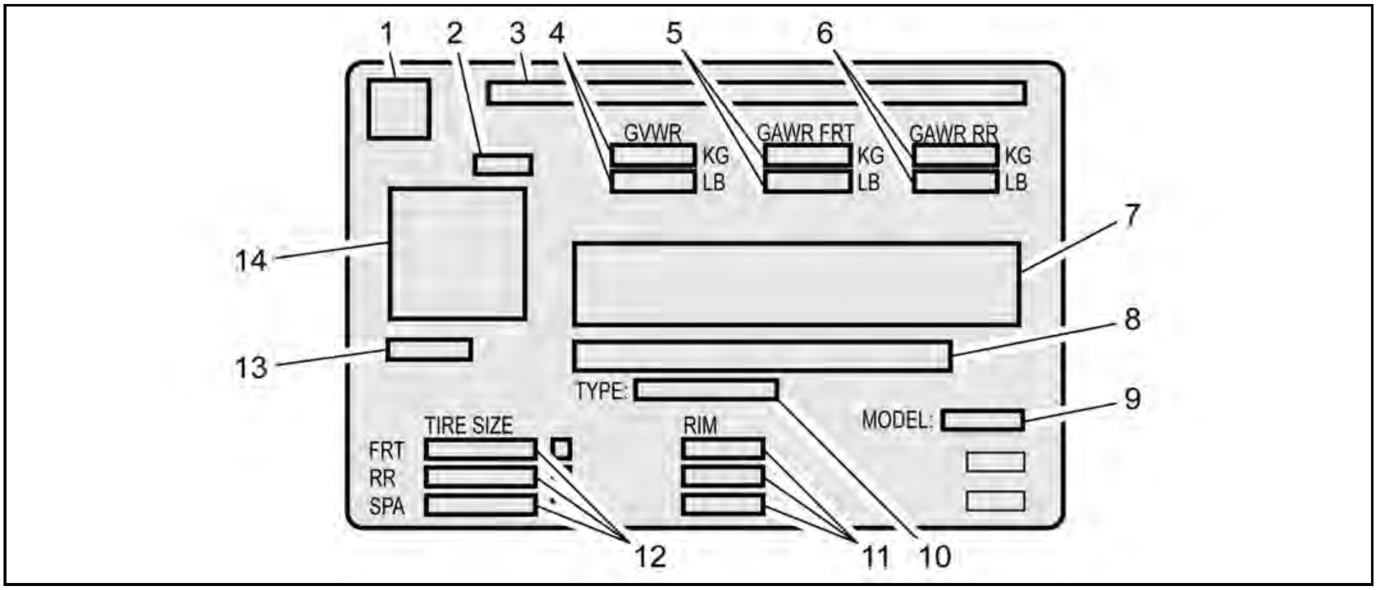
6L80 (MYC) Transmission ID and VIN Derivative Location

Transmission Identification Information

8L90 (MQE) Transmission ID and VIN Derivative Location

Transmission Identification Information

Vehicle Certification, Tire Placard, and Anti-Theft Label



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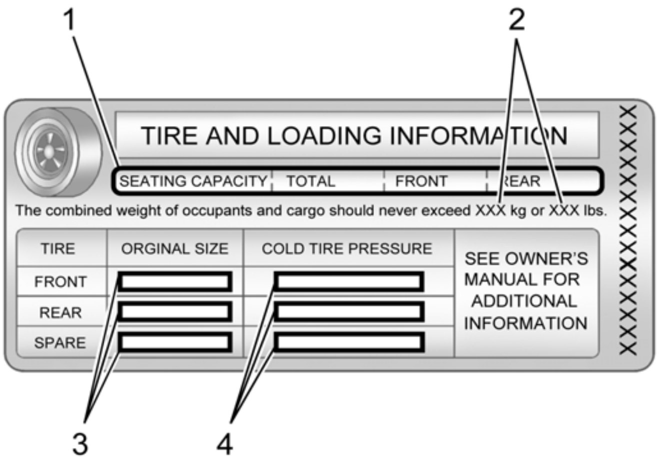
Vehicle Certification Label

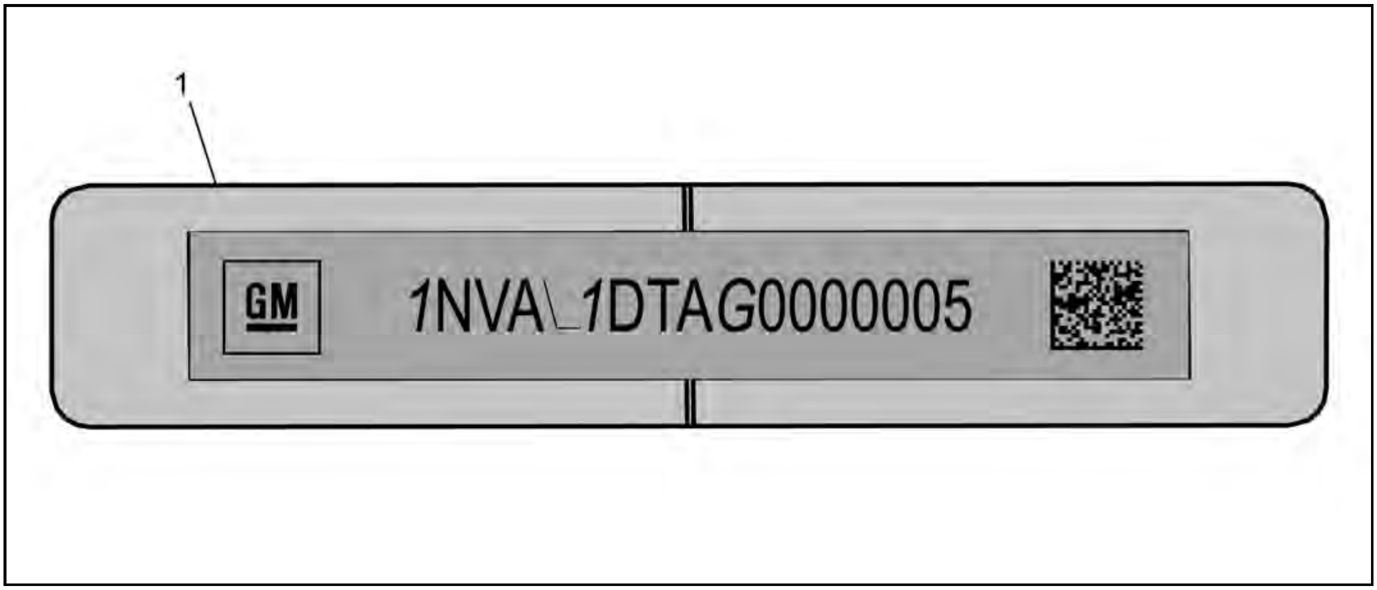
Callout	Description
A vehicle-specific Certification label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Logo
2	Final Date of Manufacture (Month and Year MM/YY) Date of manufacture is to reflect the date that the vehicle is counted as built. In those cases where a replacement label is needed, the replacement label should reflect the actual build date not the date of replacement.
3	Name of Manufacturer
4	Maximum Gross Vehicle Weight Rating (GVWR)
5	Maximum Gross Axle Weight Rating (GAWR) - Front
6	Maximum Gross Axle Weight Rating (GAWR) - Rear
7	Certification Statement
8	Vehicle Identification Number (VIN)
9	Engineering Model Number
10	Vehicle Class Type (Pass Car, etc.)
11	Original Equipment Rim Size
12	Original Equipment Tire Size
13	Paint Code
14	QR Code Once the QR code is scanned, the information will appear in this order on your smartphone or laptop: VIN, Model Year, Model, Build Month, Year, Engineering Book, Vehicle Order Number, 3 Digit RPO Codes sorted alphanumerically and the Paint Code (same code appears the lower left of the QR code)


1
2
TIRE AND LOADING INFORMATION
SEATING CAPACITY
TOTAL
FRONT
REAR
The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs.
TIRE
ORGINAL SIZE
COLD TIRE PRESSURE
SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
FRONT
REAR
SPARE
XXXXXXXXXXXXXXXXXX
3
4

4962282

Tire Placard

Callout	Description
A vehicle-specific Tire and Loading Information label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Specified Occupant Seating Positions
2	Maximum Vehicle Capacity Weight
3	Original Equipment Tire Size
4	Tire Pressure, Front, Rear, and Spare (Cold)



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Anti-Theft Label

Callout	Description
This legal identifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the windshield from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification and certificates of title and registration.	
1	Vehicle Identification Number (VIN)

RPO Code List

The following table provides the description of the Regular Production Option (RPO) codes that are available on the vehicle. The vehicle's RPO list is printed on the Service Parts Identification Label.

RPO	Description
00T	TOP COLOR-CONVERTIBLE, NIGHTSHADOW BLUE (450A)
19T	TOP COLOR-CONVERTIBLE, BLACK
1LS	PACKAGE-LS OPTION 1
1LT	PACKAGE-LT OPTION 1
1LZ	PACKAGE-LZ OPTION 1
1SE	PACKAGE-OPTION 05
1SS	PACKAGE-OPTION 17
21T	TOP COLOR-KALAHARI
2F5	SALES PACKAGE-RED INTERIOR, SPECIAL
2LT	PACKAGE-LT OPTION 2
2SS	PACKAGE-SS OPTION 2
3DL	MOLDING I/P-INTR, CARBON FIBER
3F9	SEAT BELT COLOR-RED (01)
3LT	PACKAGE-LT OPTION 3
4AA	INTERIOR TRIM-JET BLACK
4F2	INTERIOR TRIM-JET BLACK / KALAHARI
4F7	INTERIOR TRIM-JET BLACK / MED ASH GRAY
4F9	INTERIOR TRIM-JET BLACK / CERMIC WHITE (A1AC/BC)
4G2	INTERIOR TRIM-JET BLACK / ADRENALINE RED
56H	ACCESSORY-WHEEL - 20 X 8.5, J FRT & 20 X 9.5, J, RR, ALUMINUM, DESIGN 2
56K	ACCESSORY-WHEEL - 20 X 8.5, J FRT & 20 X 9.5, J, RR, ALUMINUM, DESIGN 4

RPO	Description
56M	ACCESSORY-WHEEL - 20 X 8.5 - J - FRT & 20 X 9.5 - J - RR - ALUMINUM - DESIGN 5
56R	WHEEL-20 X 8.5, J, FRT & 20 X 9.5, J, RR, ALUMINUM, DESIGN 1
56S	WHEEL-20 X 8.5, J, FRT & 20 X 9.5, J, RR, ALUMINUM DESIGN 2
56V	WHEEL-20 X 8.5, J, FRT & 20 X 9.5, J, RR, ALUMINUM DESIGN 3
56W	WHEEL-20 X 8.5, J, FRT & 20 X 9.5, J, RR, ALUMINUM, DESIGN 4
56Y	WHEEL-20 X 8.5, J, FRT & 20 X 9.5, J, RR, ALUMINUM, DESIGN 5
56Z	WHEEL-20 X 8.5, J, FRT & 20 X 9.5, J, RR, ALUMINUM, DESIGN #6
57S	ACCESSORY-WHEEL - 20 X 8.5 - J - FRT & 20 X 9.5 - J - RR - ALUMINUM - DESIGN 8
57W	WHEEL-20 X 8.5, J, FRT & 20 X 9.5, J, RR, ALUMINUM, DESIGN 26
58E	WHEEL-20 X 8.5, J FRT & 20 X 9.5, J, RR, ALUMINUM, DESIGN 10
5A7	WHEEL SPARE-NONE
5AZ	ACCESSORY-SAFETY KIT - UNIVERSAL
5JW	ACCESSORY-WHEEL - 20 X 8.5 - J - ALUMINUM - DESIGN 4
5JX	ACCESSORY-WHEEL - 20 X 8.5 - J - ALUMINUM - DESIGN 5
5K2	ACCESSORY-DECAL PACKAGE - BODY SIDE, DESIGN 1
5KP	ACCESSORY-ILLUMINATED DOOR SILLS - ALTERNATE DESIGN
5LQ	ACCESSORY-BRAKE UPGRADE PKG 2 - COMPLETE
5V5	ACCESSORY-SPOILER DESIGN 1
5V6	ACCESSORY-INTERIOR ENHANCEMENT - PACKAGE A
5V8	ACCESSORY-INTERIOR ENHANCEMENT - PACKAGE B
5VF	ACCESSORY-EXHAUST TIP - DESIGN 3
5VM	ACCESSORY-GROUND EFFECTS PACKAGE - ALTERNATE DESIGN
5WF	ACCESSORY-BATTERY PROTECTION PACKAGE
5YN	ACCESSORY-BADGE - INTERIOR TRIM, DESIGN 1
5ZB	ACCESSORY-CENTER CAP - WHEEL - DESIGN 5
5ZC	ACCESSORY-CENTER CAP - WHEEL - DESIGN 6
5ZD	ACCESSORY-CENTER CAP - WHEEL - DESIGN 7
5ZU	ACCESSORY-SPOILER - DECKLID - DESIGN 2
5ZV	ACCESSORY-SPOILER - DECKLID - DESIGN 3
5ZW	ACCESSORY-SPOILER - DECKLID - DESIGN 4
5ZZ	ACCESSORY-SPOILER - DECKLID - DESIGN 5
62F	ACCESSORY-MAT - TRUNK/CARGO AREA - ALT DESIGN
62O	ACCESSORY-CHMSL - CENTER HIGH MOUNT STOP LIGHT
65C	LABEL, WARNING-CALIFORNIA, PROP 65 COMPLIANT
6ZQ	ACCESSORY-SPOILER - DECKLID - DESIGN 6
9L3	TIRE SPARE-NONE
A1V	MODEL CONVERSION-CHEVROLET LZ
A1X	MODEL CONVERSION-CHEVROLET 1LE
A1Y	MODEL CONVERSION-CHEVROLET SS
A1Z	MODEL CONVERSION-CHEVROLET ZL1
A45	MEMORY-SEAT ADJUSTER, MIRROR, POWER, DRIVER, PERSONALIZATION
A50	SEAT-FRT BKT
A62	SEAT RR-FIXED SEAT BACK
A9B	APPEARANCE PACKAGE-BLACK
AAQ	ADJUSTER PASS ST-POWER, 4 WAY (DO NOT USE ON NEW PROGRAMS AFTER MY18)
ACO	IDENTIFICATION-ACCESSORY CATALOG OFFERING
AJ9	RESTRAINT SYSTEM-SEAT, INFLATABLE, DRIVER & PASS, FRT & SEAT SIDE HIGH POSITION
AKQ	ADJUSTER PASS ST-SEAT, POWER, 6 WAY, VERT (DO NOT USE ON NEW PROGRAMS AFTER MY18)
AL0	SENSOR INDICATOR-INFLATABLE RESTRAINT, FRT PASS/CHILD PRESENCE DETECTOR
AM7	SEAT RR-FOLDING
AQJ	SEAT-FRT BKT, HIGH PERFORMANCE
AT8	RESTRAINT PROVISIONS-CHILD, RR SEAT, RR FACING
ATH	LOCK CONTROL, ENTRY-REMOTE ENTRY, EXTENDED RANGE, PASSIVE ENTRY, ALL DOORS
AV3	ADJUSTER FRT ST-POWER, 8 WAY, DRIVER - DO NOT USE ON NEW PROGRAMS AFTER MY18
AXJ	VEHICLE TYPE-PASSENGER CAR
AYG	RESTRAINT SYSTEM-SEAT, INFLATABLE, DRIVER & PASS FRT, SEAT SIDE, ROOF SIDE, KNEE
B2E	SALES-SPRING SPECIAL PACKAGE
B34	COVERING FRT-FLOOR MATS, CARPETED INSERT
B3T	HOOD-ACTIVE, PEDESTRIAN PROTECTION
B3V	TEST-EXTENDED WATER
B7G	PLATE-DOOR SILL COVER, ILLUMINATED

RPO	Description
B9M	ORNAMENTATION-EXTR, TAIL LAMPS, SMOKED LENS VAR 1
BAG	PARTS PKG-EXPORT
BD2	ORNAMENTATION-EXTR, - NONE
BD4	ORNAMENTATION-INTERIOR, NONE
BO3	DECAL-STRIPE, ABALONE WHITE TRI-COAT
BO4	DECAL-STRIPE, CARBON FLASH MET
BRD	SALES-INTERIOR 'ACCENT' TRIM PACKAGE - VAR 3
BRJ	SALES-INTERIOR 'ACCENT' TRIM PACKAGE - VAR 5
BTV	REMOTE START-ENGINE
C2U	DECAL-STRIPE, SILVER
C3O	DECAL-STRIPE, BLACK
C68	HVAC SYSTEM-AIR CONDITIONER FRT, AUTO, ELECTRONIC CONTROLS
C70	LAMP-INTR, AMBIENT, UPLEVEL
CF5	ROOF-SUN, GLASS, SLIDING, ELEC (DO NOT USE NEXT NEW MAJOR)
CFW	HOOD-ALUMINUM, CARBON FIBER INSERT
CG3	ORNAMENTATION-EXTR, NAMEPLATE
CG6	ORNAMENTATION-EXTR, NAMEPLATE, VAR 1
CJ2	HVAC SYSTEM-AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT
CM8	ROOF-CONVERTIBLE, FOLDING, POWER, REMOTE CONTROL
D31	MIRROR I/S R/V-TILT
D52	SPOILER-RR END, SPORT
D5S	SPOILER-RR, BLADE
D5Z	SPOILER-RR, STANCHION
D80	SPOILER-RR END PNL
D88	DECAL-STRIPE, SPORT
DAZ	MIRROR O/S-LH & RH, REMOTE CONTROL, ELECTRIC, HEATED, LT SENSITIVE LH SIDE ONLY, ECE
DCP	PROCESSING-DIRECTIONS & CONNECTIONS SERVICE PACKAGE
DCT	MIRROR O/S-LH & RH, REMOTE CONTROL, MANUAL FOLDING, TURN SIG IND, COLOR
DD1	MIRROR O/S-LH & RH, REMOTE CONTROL, ELECTRIC, HEATED, LT SENSITIVE LH SIDE ONLY
DD8	MIRROR I/S R/V-LT SENSITIVE
DG7	MIRROR O/S-LH & RH, REMOTE CONTROL, ELECTRIC, COLOR
DNS	EQUIPMENT-SUPPLIER INSTALLED
DRZ	MIRROR I/S R/V-LT SENSITIVE, FULL VIDEO DISPLAY
DSM	DECAL PACKAGE-HOOD WRAP

RPO	Description
DUU	DECAL PACKAGE-BLACK
DUV	DECAL PACKAGE-SWITCHBLADE SILVER
DVV	DECAL PACKAGE-BLACK MEET KETTLE METALLIC
DW7	DECAL PACKAGE-ABALONE WHITE TRI-COAT
DW8	DECAL PACKAGE-CARBON FLASH METALLIC
DX3	STRIPE-(NONE)
ERI	EQUIPMENT-BATTERY SAVER
EXP	EXPORT-
F55	CHASSIS-CONTINOUSLY VARIABLE REAL TIME DAMPING MAGNETO RHEOLOGICAL
FE2	SUSPENSION SYSTEM-RIDE, HANDLING
FE3	SUSPENSION SYSTEM-SPORT
FE4	SUSPENSION SYSTEM-SPECIAL RIDE & HANDLING
FE9	CERTIFICATION-EMISSION, FEDERAL
FEA	SUSPENSION SYSTEM-RIDE, HANDLING, PERFORMANCE, VAR 2
FGF	FREQUENCIES-PHILIPPINES
FJW	VEHICLE FUEL-GASOLINE E15
FTF	EXTENSION-FRT FASCIA, BODY COLOR
FTJ	EXTENSION-FRT FASCIA, BODY COLOR, VAR 1
G16	PRIMARY COLOR-EXTERIOR, CRUSH-1 (413C)
G7C	PRIMARY COLOR-EXTERIOR, PULL ME OVER RED SOLID (130X)
G7E	PRIMARY COLOR-EXTERIOR, CAUGHT RED HANDED TINTCOAT (132X)
G80	AXLE POSITRACTION-LIMITED SLIP
G96	AXLE POSITRACTION-LIMITED SLIP, ELECTRONIC
G9K	PRIMARY COLOR-EXTERIOR, SATIN STEEL GRAY MET-3 (464C)
GAZ	PRIMARY COLOR-EXTERIOR, SUMMIT WHITE (G) 8624
GBA	PRIMARY COLOR-EXTERIOR, BLACK (G) 8555
GJ0	PRIMARY COLOR-EXTERIOR, STINGER MET -1 (624D)
GJI	PRIMARY COLOR-EXTERIOR, DARK SHADOW MET -1 (626D)
GKK	PRIMARY COLOR-EXTERIOR, OCONUS MET -1 (627D)
GKO	PRIMARY COLOR-EXTERIOR, SHOCK -1 (628D)
GLR	PRIMARY COLOR-EXTERIOR, ROWAN MET-1 (326E)
GT4	AXLE REAR-3.73 RATIO
GW6	AXLE REAR-3.27 RATIO

RPO	Description
H01	INTERIOR TRIM CONFIG-LEATHER, LEVEL 1, KALAHARI (A1AC/BC)
H0W	INTERIOR TRIM CONFIG-SUEDE, LEVEL 1, JET BLACK / ADRENALINE RED
H0Y	INTERIOR TRIM CONFIG-LEATHER, LEVEL 1, JET BLACK
H13	INTERIOR TRIM CONFIG-LEATHER, LEVEL 1, CERAMIC WHITE (A1AC/BC)
H16	INTERIOR TRIM CONFIG-LEATHER, LEVEL 1, ADRENALINE RED (A1AC/BC)
H17	INTERIOR TRIM CONFIG-LEATHER, LEVEL 1, MED ASH GRAY
H1T	INTERIOR TRIM CONFIG-CLOTH, LEVEL 1, JET BLACK
H72	INTERIOR TRIM CONFIG-CLOTH, LEVEL 1, MED ASH GRAY
HRD	AXLE REAR-2.85 RATIO
HRE	AXLE REAR-2.77 RATIO
I20	ENGINEERING YEAR-2020
IOR	RADIO-INFOTAINMENT SYSTEM - 3.X LOW HMI, MIDLEVEL CONNECTIVITY 3.X
IOS	RADIO-INFOTAINMENT SYSTEM - 3.X MID/ HIGH HMI, ENHANCED CONNECTIVITY, VOICE RECOGNITION, MID SD NAV CAPABLE
IOT	RADIO-INFOTAINMENT SYSTEM - 3.X MID/ HIGH HMI, ENHANCED CONNECTIVITY, VOICE RECOGNITION, PREMIUM SD NAV
J55	BRAKE SYSTEM-HEAVY DUTY
J6E	CALIPER COLOR-YELLOW
J6F	CALIPER COLOR-RED
J6G	BRAKE SYSTEM-POWER, FRT & RR DISC, ABS, 18", HEAVY DUTY
J6H	BRAKE SYSTEM-POWER, FRT & RR DISC, ABS, 19", HEAVY DUTY
J6L	CALIPER COLOR-ORANGE
J6M	BRAKE SYSTEM-PWR, FRT DISC & RR DRUM
J71	BRAKE PARKING-POWER OPERATED
J77	BRAKE PARKING-ELECTRONICALLY OPERATED
JF5	PEDALS-SPORTY, ALLOY
JL9	BRAKE SYSTEM-PWR, FRT & RR DISC, ANTILOCK, FRT & RR WHL
K05	HEATER ENG-BLOCK
K4C	CHARGER-INDUCTIVE PORTABLE WIRELESS DEVICE
KA1	HEATER SEAT FRT-DRVR & PASS
KB7	SHIFT CONTROL-MANUAL SHIFT, AUTOMATIC TRANSMISSION
KC4	COOLING SYSTEM-ENG OIL
KD1	COOLING SYSTEM-TRANS, OIL
KNR	COOLING SYSTEM-AXLE
KQV	HEATER-SEAT, VENTED, FRT

RPO	Description
KR1	REFRIGERANT-AIR CONDITIONING
KRV	REFRIGERANT-LOW GWP
KS9	KNOB-TRANS CONT LEVER, SUEDE
KTI	KIT, TIRE-INFLATOR
LAL	PLANT CODE-LANSING, MI, USA (GRAND RIVER)
LGX	ENGINE-GAS, 6 CYL, 3.6L, V6, DI, DOHC, VVT, ALUM, GEN 2
LT1	ENGINE-GAS, 8 CYL, 6.2L, DI, AFM, VVT, HO, ALUM, GMNA
LT4	ENGINE-GAS, 8 CYL, 6.2L,DI, SC, AFM, VVT, ALUM, GMNA
LTG	ENGINE-GAS, 4 CYL, 2.0L, SIDI, L4, ALUM DOHC, VVT, DCVCP, TURBO, E0-E100, ALUM
M13	TRANSMISSION-MAN 6 SPD, 81MM, 4.45 1ST, 2.83 2ND, 1.98 3RD, 1.40 4TH, 1.00 5TH, 0.76 6TH
M5T	TRANSMISSION-AUTO 8 SPD, 8L45
M97	SHIFTER INTERLOCK-BRAKE, TRANS
MCR	RECEPTACLE-MEMORY CARD (DO NOT USE NEXT NEW MAJOR)
MH3	TRANSMISSION-MAN 6 SPD, TREMEC, 85MM, 2.29 1ST, 0.818 5TH, 0.675 6TH
MI1	TRANSMISSION-AUTO 10 SPD, 10L60, GEN 1, VAR 1
MI2	TRANSMISSION-AUTO 10 SPD, 10L80, GRX, VAR 1, GEN 1
MI4	TRANSMISSION-AUTO 10 SPD, 10L90, VAR 1, GEN 1
MJK	TRANSMISSION-MAN 6 SPD, TR6060, 85MM, 2.28 1ST, 1.61 2ND, 1.20 3RD, 1.00 4TH, 0.81 5TH, 0.53 6TH
MM6	TRANSMISSION-MAN 6 SPD, TREMEC, 85MM, 2.66 1ST, 0.50 6TH, O/D
MN6	MERCHANDISED TRANS-MAN 6 SPD PROVISIONS
MTF	PROVISIONS-FIRE EXTINGUISHER MOUNTING
MX0	MERCHANDISED TRANS-AUTO PROVISIONS, O/D
N06	STEERING COLUMN LOCK-ELECTRICAL
N08	LOCK CONTROL-FUEL FILLER DR, REM CONT
N10	EXHAUST SYSTEM-DUAL
N26	STEERING WHEEL-SUEDE
NA3	EMISSION SYSTEM-JAPAN
NE1	CERTIFICATION-EMISSION, GEOGRAPHICALLY RESTRICTED REGISTRATION FOR VEHICLES UP TO 14, 000 LBS GVW (USE 2003 MDL YR
NE8	EVAPORATIVE SYSTEM-LEVEL 3 EMISSIONS
NEK	EVAPORATIVE SYSTEM-KOREA LEV3 EMISSIONS

RPO	Description
NKC	NOISE CONTROL-ACTIVE NOISE CANCELLATION, ENGINE
NKE	NOISE CONTROL-ELECTRONIC SOUND ENHANCER (DO NOT USE NEW MAJOR)
NM6	EMISSION SYSTEM-PROCONVE L-6
NP5	STEERING WHEEL-LEATHER WRAPPED
NPP	EXHAUST SYSTEM-PERFORMANCE
NTB	EMISSION SYSTEM-FEDERAL, TIER 3
NUB	EMISSION SYSTEM-CALIFORNIA, ULEV70
NUC	EMISSION SYSTEM-CALIFORNIA, ULEV50
NUE	EMISSION SYSTEM-CALIFORNIA, LEV160
NUO	EMISSION SYSTEM-KOREAN, LEV160
NV9	STEERING-POWER, VARIABLE, ELECTRIC
P3H	ORNAMENTATION-EXTR, BOWTIE
PKJ	WHEEL-19 X 11, J, FRT & 19 X 12, J, RR ALUMINUM DESIGN 1
Q7F	WHEEL-20 X 8.5, J, ALUMINUM, DESIGN 5
R0F	TIRE ALL-245/40ZR20 SL 95Y BW RF4 & 275/35ZR20 SL 97Y BW RF4
R0G	TIRE ALL-285/30ZR20 SL (95Y) BW HW4 & 305/30ZR20 SL (99Y) BW HW4
R0H	TIRE ALL-245/50R 18 SL 100V BW AL3
R29	TIRE ALL-245/40R20 SL95V BW RF3
R6O	TIRE ALL-305/30ZR19 SL (98Y) BW HW5 & 325/30ZR19 SL (101Y) BW HW5 VAR 1
R88	ACCESSORY-ILLUMINATED EMBLEM - EXTERIOR - DESIGN 2
REG	WHEEL-18 X 8.5, J, ALUMINUM, DESIGN 7
RIK	ACCESSORY-BADGE - EXTERIOR, PACKAGE, DESIGN 1
RIN	ACCESSORY-BADGE - EXTERIOR, PACKAGE, DESIGN 2
RMH	ACCESSORY-FRONT FASCIA EXTENSION - DESIGN 2
RN2	ACCESSORY-ILLUMINATED EMBLEM - EXTERIOR - DESIGN 1
RNX	ACCESSORY-COVER - VEHICLE - OUTDOOR, DESIGN 2
RO1	ACCESSORY-GRILLES/GRILLE INSERT - ALTERNATE DESIGN 3
RO2	ACCESSORY-GRILLES/GRILLE INSERT - ALTERNATE DESIGN 4
RQ9	WHEEL-20 X 8.5, J, ALUMINUM, DESIGN 1
RQA	WHEEL-20 X 8.5, J, ALUMINUM, DESIGN 2
RSK	WHEEL-20 X 10.0, J, FRT & 20 X 11.0, J, RR, ALUMINUM, DESIGN 1
RTH	WHEEL-20 X 8.5, J, ALUMINUM, DESIGN 3
RTJ	WHEEL-20 X 8.5, J, ALUMINUM, DESIGN 4
RTQ	WHEEL-20 X 10.0, J, FRT & 20 X 11.0, J, RR, ALUMINUM, DESIGN 2
RVK	ACCESSORY-AIRBOX

RPO	Description
RWH	ACCESSORY-COVER - VEHICLE - INDOOR, DESIGN 1
RWJ	ACCESSORY-COVER - VEHICLE - OUTDOOR, DESIGN 1
RWS	ACCESSORY-FLOOR MATS - CARPET
RX0	ACCESSORY-BRAKE CALIPERS
RXE	ACCESSORY-CATBACK/OFF-ROAD EXHAUST SYSTEM
RXH	ACCESSORY-CENTER CAP - WHEEL - DESIGN 1
RXJ	ACCESSORY-CENTER CAP - WHEEL - DESIGN 2
RY2	ACCESSORY-DECALS/APPLIQUES
RYT	ACCESSORY-FIRST AID KIT
RZ3	ACCESSORY-FRONT FASCIA EXTENSION - DESIGN 1
RZB	ACCESSORY-GRILLES/GRILLE INSERT - ALTERNATE DESIGN 2
S08	ACCESSORY-HIGHWAY SAFETY KIT
S0O	ACCESSORY-ILLUMINATED FOOT WELLS
S0U	ACCESSORY-INTERIOR TRIM KIT - ALTERNATE FINISH 2
S0V	ACCESSORY-INTERIOR TRIM KIT - ALTERNATE FINISH 3
S47	ACCESSORY-LUG NUTS
S54	ACCESSORY-NAVIGATION MAP UPDATES
SA7	ACCESSORY-SHIFT KNOBS - ALTERNATE FINISH
SAO	ACCESSORY-SMOKERS PACKAGE
SB2	ACCESSORY-SPOILER - DECKLID - FLUSH MOUNT
SB3	ACCESSORY-SPOILER - DECKLID - WING
SB7	ACCESSORY-DECAL PACKAGE - DESIGN 1
SB9	ACCESSORY-DECAL PACKAGE - DESIGN 2
SBF	RESTRAINT-SEAT BELT VAR. 1
SBG	RESTRAINT-SEAT BELT, VAR 2
SC1	ACCESSORY-STABILIZER BAR KIT
SCG	ACCESSORY-STRUT - ALTERNATE FINISH
SCJ	ACCESSORY-SUSPENSION LOWERING KIT
SCY	ACCESSORY-TAIL LAMPS - ALTERNATE COLOR
SD5	ACCESSORY-TIRE PRESSURE MONITOR
SF8	ACCESSORY-DECAL PACKAGE - DESIGN 3
SF9	ACCESSORY-DECAL PACKAGE - DESIGN 4
SFA	ACCESSORY-DECAL PACKAGE - DESIGN 5
SFC	ACCESSORY-DECAL PACKAGE - DESIGN 6

RPO	Description
SFE	ACCESSORY-WHEEL LOCKS
SFZ	ACCESSORY-EMBLEM - EXTERIOR - DESIGN 1
SG3	ACCESSORY-SPRINGS - SPORT SUSPENSION
SGE	WHEEL-18 X 7.5, J, ALUMINUM, DESIGN 8
SH1	ACCESSORY-ARMREST - DESIGN 2
SH2	ACCESSORY-ARMREST - DESIGN 3
SHL	ACCESSORY-WHEEL - 20 X 8.5 - J - ALUMINUM - DESIGN 2
SHQ	ACCESSORY-DECAL PACKAGE - DESIGN 11
SHS	ACCESSORY-DECAL PACKAGE - DESIGN 13
SHT	ACCESSORY-DECAL PACKAGE - DESIGN 14
SHU	ACCESSORY-DECAL PACKAGE - DESIGN 15
SIA	ACCESSORY-SPOILER EXTENSION - DECKLID
SIB	ACCESSORY-INTERIOR TRIM - ILLUMINATED - DESIGN 1
SIC	ACCESSORY-INTERIOR TRIM - ILLUMINATED - DESIGN 2
SJ8	ACCESSORY-ILLUMINATION PACKAGE - INTERIOR AMBIENT
SKW	ACCESSORY-WHEEL - 20 X 8.5 - J - ALUMINUM - DESIGN 6
SL1	ACCESSORY-COVER - VEHICLE - INDOOR, DESIGN 2
SL2	ACCESSORY-FRONT FASCIA EXTENSION - ALTERNATIVE FINISH
SLN	ACCESSORY-STRUT TOWER BRACE
SNB	ACCESSORY-DECAL PACKAGE - DESIGN 18
SNC	ACCESSORY-DECAL PACKAGE - DESIGN 19
SNE	ACCESSORY-DECAL PACKAGE - DESIGN 20
SNG	ACCESSORY-DECAL PACKAGE - DESIGN 21
SNH	ACCESSORY-DECAL PACKAGE - DESIGN 22
SNJ	ACCESSORY-DECAL PACKAGE - DESIGN 23
SNM	ACCESSORY-DECAL PACKAGE - DESIGN 25
SNP	ACCESSORY-DECAL PACKAGE - DESIGN 26
SNQ	ACCESSORY-DECAL PACKAGE - DESIGN 27
SNS	ACCESSORY-DECAL PACKAGE - DESIGN 28
SPY	ACCESSORY-LUG NUTS - ALT FINISH
SPZ	ACCESSORY-WHEEL LOCKS - ALT FINISH

RPO	Description
SRI	WHEEL-20 X 8.5 - J - ALUMINUM - DESIGN 21
STI	ACCESSORY-ROCKER MOLDINGS ALTERNATE FINISH 3
T3S	LAMP-DAYTIME RUNNING, SEPARATE CAVITY, LED
T42	SPOILER-DRAG, AIR FOIL
T43	SPOILER-RR
T4F	HEADLAMPS-HIGH INTENSITY DISCHARGE
T4L	HEADLAMPS-LED
T61	LAMP SYSTEM-DAYTIME RUNNING
T79	LAMP-FOG, RR
T90	LAMP-SIGNALING & MARKER, EXPORT
T94	HEADLAMP RULE OF RD-LH RULE OF THE ROAD
TD2	HANDLING CHARGE-FROM LGR, TO LGR - LOC CAM STRPG, AND BACK TO LGR
TDM	MODE-TEEN DRIVER SETTINGS
TR7	CONTROL, HEADLAMPS-LEVELING SYSTEM, AUTOMATIC
TW7	LAMP-TAIL & STOP, ECE, RH & LH RULE OF ROAD
U03	HORN-NOISE REGULATION
U19	SPEEDOMETER-INST, KILO & MILES, KILO ODOMETER
U2K	DIGITAL AUDIO SYSTEM-S-BAND
U77	ANTENNA-RR WINDOW, RADIO
U80	DISPLAY-COMPASS
UB3	ANTENNA-FIXED, RR SPOILER, RADIO
UD7	PARK ASSIST-REAR
UDA	COMMUNICATION SYSTEM-VEHICLE, DEACTIVATED
UDD	DISPLAY INSTRUMENT-DRIVER INFO ENHANCED (MULTI COLOR STANDARD GRAPHIC)
UE1	COMMUNICATION SYSTEM-VEHICLE, ONSTAR
UEU	SENSOR INDICATOR-FORWARD COLLISION ALERT
UFG	REAR CROSS TRAFFIC-ALERT
UHS	DISPLAY INSTRUMENT-DRIVER INFO ENHANCED (MULTI COLOR ENHANCED GRAPHIC)
UJM	TIRE PRESS INDICATOR-MANUAL LEARN
UK1	FREQUENCIES-JAPANESE
UKC	SIDE ACTIVE SAFETY-OBSTACLE DETECTION ENHANCED
UKP	FREQUENCIES-KOREAN
UL2	FREQUENCIES-EUROPEAN
UL8	FREQUENCIES-SAUDI ARABIAN
UMN	SPEEDOMETER-INST, MILES & KILO, MILES ODOMETER

RPO	Description
UPG	WIRELESS INTERFACE-SHORT RANGE
UQ3	SPEAKER SYSTEM-ENHANCED AUDIO
UQA	SPEAKER SYSTEM-PREMIUM AUDIO, BRANDED AMPLIFIER
UQT	RECORDER-VEHICLE PERFORMANCE
UST	RECEPTACLE-DUAL USB, SINGLE AUX (DO NOT USE NEXT NEW MAJOR, SEE BFO)
UV6	HEAD UP DISPLAY-WINDSHIELD
UVB	VISION-REAR VIEW, MONO, HD DIGITAL
UVD	STEERING WHEEL HEAT-MANUAL
V03	COOLING SYSTEM-EXTRA CAPACITY
V18	COOLER-ENGINE COOLANT, AUX
V78	VEHICLE STATEMENT-VEHICLE LABEL CONTENT - NO CERT STATEMENT (ENGLISH TEXT)
V87	VEHICLE STATEMENT-VEHICLE LABEL CONTENT - GULF STATES ORGANIZATION
V8A	VEHICLE STATEMENT-VEHICLE LABEL CONTENT - KOREA - KMVSS
V8B	VEHICLE STATEMENT-VEHICLE LABEL CONTENT - BRAZIL
V8C	VEHICLE STATEMENT-VEHICLE LABEL CONTENT - NO CERT STATEMENT
V8D	VEHICLE STATEMENT-VEHICLE LABEL CONTENT - U.S. FMVSS
V8E	VEHICLE STATEMENT-VEHICLE LABEL CONTENT - CANADA CMVSS
V8I	VEHICLE STATEMENT-VEHICLE LABEL CONTENT - ISRAEL FMVSS
VAV	ACCESSORY-FLOOR MATS - ALL WEATHER
VDN	ACCESSORY-COVER - VEHICLE - INDOOR - DESIGN 3
VEB	ACCESSORY-PEDAL COVER SET
VGS	ACCESSORY-COVER - VEHICLE - OUTDOOR, DESIGN 4
VK3	LICENSE PLATE FRONT-FRT MOUNTING PKG
VLI	ACCESSORY-MAT - TRUNK / CARGO AREA
VLN	ACCESSORY-WINDSCREEN
VP6	NOISE CONTROL-
VPH	VEHICLE PREPARATION-OVERSEAS DELIVERY
VPO	ACCESSORY-DECAL PACKAGE - DESIGN 8
VPW	ACCESSORY-DECAL PACKAGE - DESIGN 9
VQG	ACCESSORY-WEATHER PROTECTION PACKAGE
VQL	ACCESSORY-FUEL DOOR - DESIGN 1

RPO	Description
VR5	PROVISIONS-SLOW VEHICLE WARNING TRIANGLE MOUNTING (DO NOT USE NEXT NEW MAJOR)
VRU	ACCESSORY-COVER - VEHICLE - OUTDOOR - GRAY
VRV	ACCESSORY-SPLASH GUARDS - CUSTOM MOLDED - PAINTED
VT7	OWNERS MANUAL-ENGLISH LANGUAGE
VTA	ACCESSORY-EXHAUST TIP - DESIGN 2
VTD	ACCESSORY-GROUND EFFECTS PACKAGE
VTF	ACCESSORY-ARMREST - DESIGN 1
VTG	ACCESSORY-INTERIOR TRIM KIT
VTU	ACCESSORY-FUEL DOOR - DESIGN 2
VUP	ACCESSORY-DECAL PACKAGE - DESIGN 10
VV4	COMMUNICATION EQUIP-MOBILE INTERNET CONNECTIVITY
VVS	CALIBRATION-DAYTIME RUNNING LAMPS, NOT REQUIRED
VW9	ACCESSORY-CENTER CAP - WHEEL - DESIGN 3
VWD	ACCESSORY-CENTER CAP - WHEEL - DESIGN 4
VY7	KNOB-TRANS CONT LEVER, LEATHER
VYV	ACCESSORY-SHIFTER - SHORT THROW
VYW	ACCESSORY-FLOOR MATS - PREMIUM CARPET - DESIGN 1
VYX	ACCESSORY-ENGINE COVERS
W0D	ACCESSORY-FUEL DOOR - DESIGN 3
W0E	ACCESSORY-FUEL DOOR - DESIGN 4
W1V	ACCESSORY-FLOOR MATS - PREMIUM CARPET - ALT DESIGN
W2D	ACCESSORY-CARGO NET
WBL	SALES PACKAGE-SPORT
WGK	ACCESSORY-INTERIOR TRIM KIT - DESIGN 1
WGL	ACCESSORY-INTERIOR TRIM KIT - DESIGN 2
WGT	ACCESSORY-INTERIOR TRIM KIT - DESIGN 4
WHA	ACCESSORY-INTERIOR TRIM KIT - DESIGN 6
WL2	ACCESSORY-FLOOR MATS - PREMIUM CARPET - DESIGN 2
WL3	ACCESSORY-FLOOR MATS - PREMIUM CARPET - DESIGN 3
WML	VIN MODEL YEAR-2020
WPA	SALES PACKAGE-DRIVER CONFIDENCE
WR1	WHEEL-20 X 8.5, J, ALUMINUM, DESIGN 26
WRS	MERCHANDISED PKG-RALLY SPORT (RS)
XAQ	ACCESSORY TIRE-TIRE ALL-245/40R20 SL95V BW RF3 VAR 1

RPO	Description
XC8	ACCESSORY TIRE-TIRE ALL-245/40ZR20 SL 95Y BW RF4 & 275/35ZR20 SL 97Y BW RF4 VAR 1
XL7	FREQUENCIES RATING-315 MHZ, LONG DISTANCE
XL8	FREQUENCIES RATING-433 MHZ
XLC	CONTROL-LAUNCH, CUSTOM
Y3W	SALES PACKAGE-PREMIUM INFOTAINMENT

RPO	Description
Y4Q	SALES PACKAGE-TRACK PERFORMANCE
YF5	CERTIFICATION-EMISSION, CALIFORNIA
YM8	IDENTIFICATION-LIMITED PERSONALIZATION OPTION (LPO)
ZL1	MERCHANDISED PKG-SPECIAL PERFORMANCE
ZN2	SALES PACKAGE-CONVENIENCE AND LIGHTING

Section 2

Body Systems

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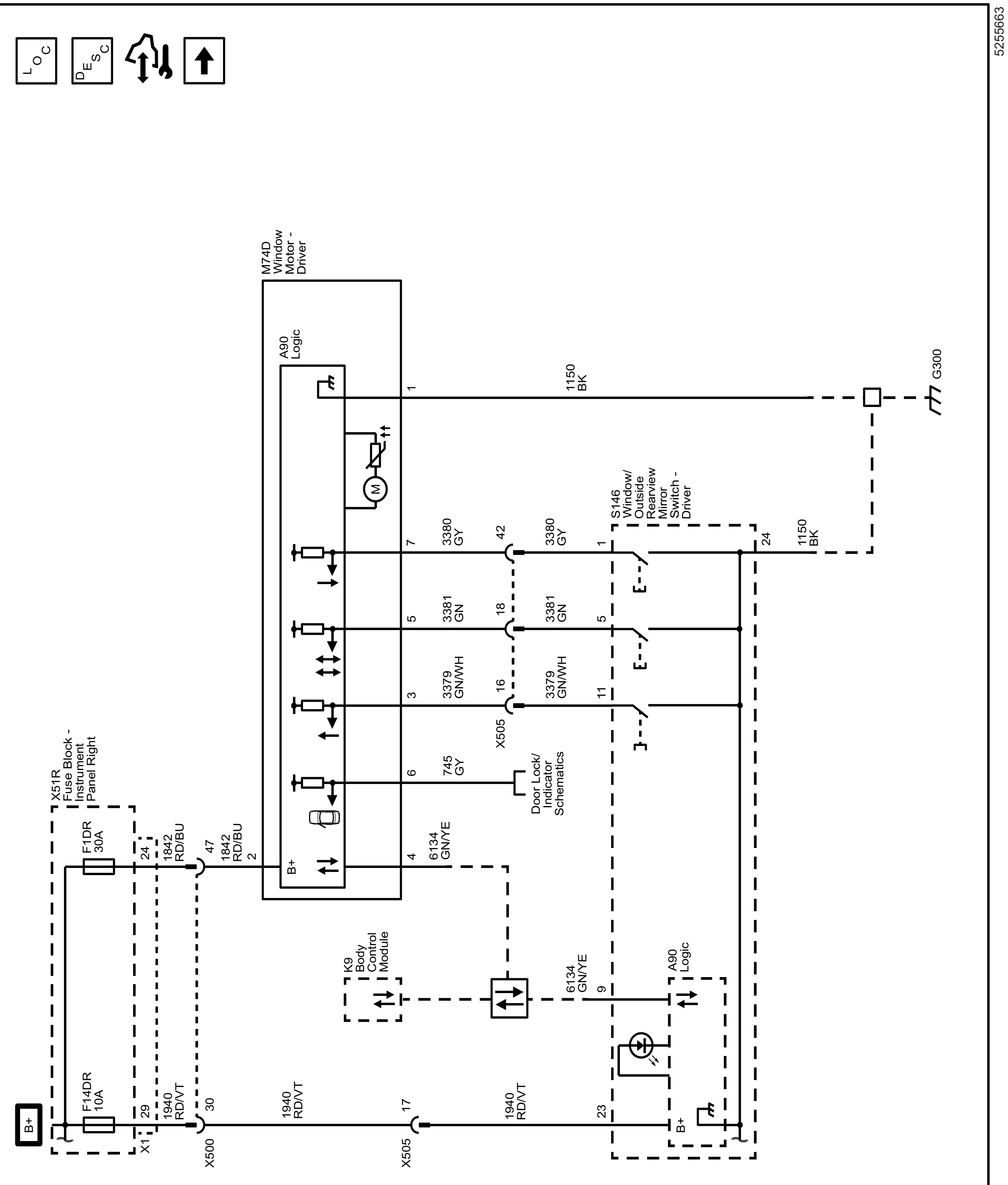
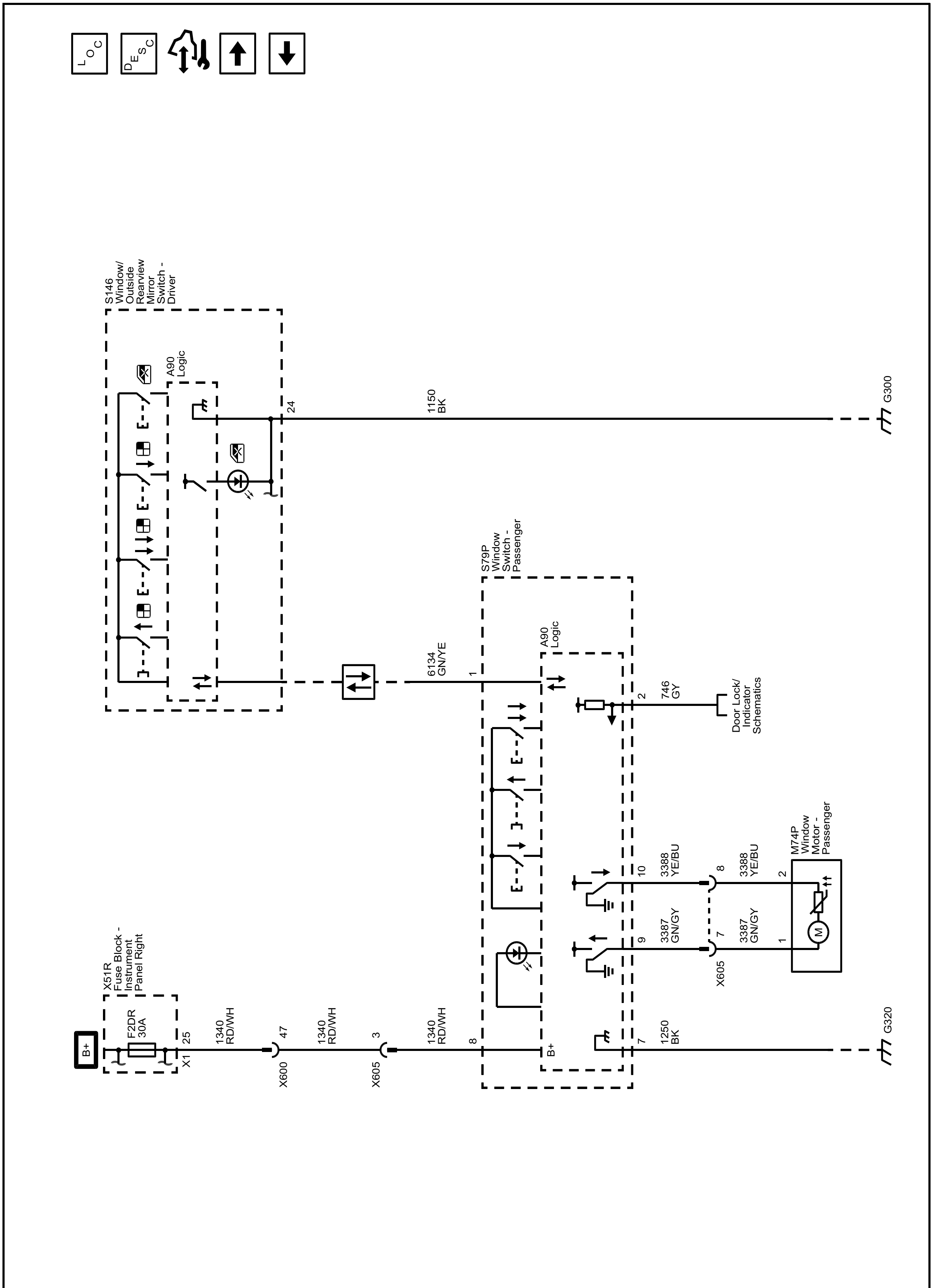
Fixed and Moveable Windows

Schematic and Routing Diagrams

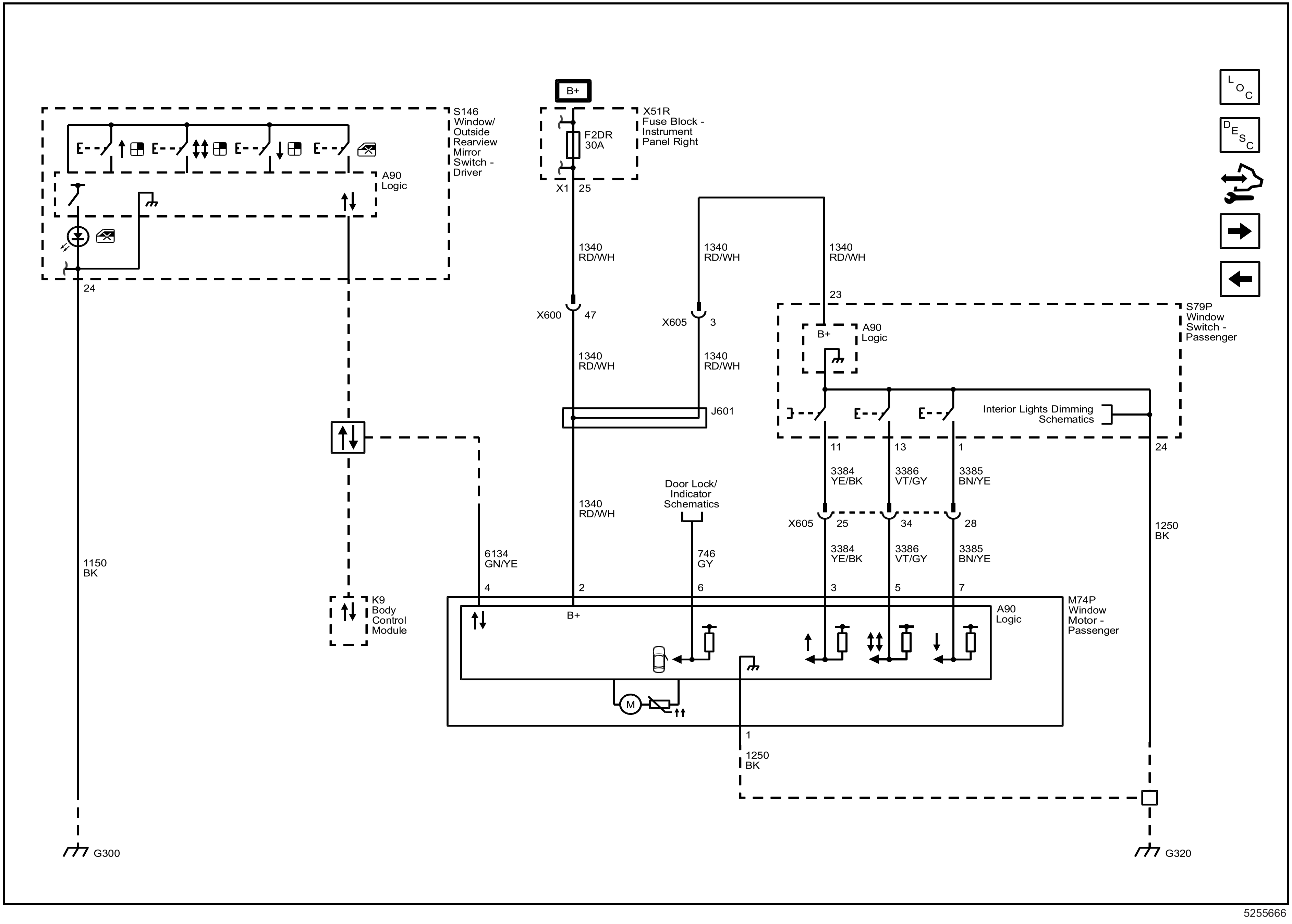
Moveable Window Schematics (Driver Window (AXG))


5255663
LOC
DESC
B+
X51R Fuse Block - Instrument Panel Right
F1DR 30A
F14DR 10A
24
29
X1
1842 RD/BU
1940 RD/VT
47
30
X500
1842 RD/BU
2
1940 RD/VT
17
X505
M74D Window Motor - Driver
A90 Logic
B+
M
1
7
5
3
6
4
1150 BK
3380 GY
3381 GN
3379 GN/WH
745 GY
6134 GN/YE
42
18
16
X505
Door Lock/ Indicator Schematics
K9 Body Control Module
6134 GN/YE
9
1940 RD/VT
23
S146 Window/ Outside Rearview Mirror Switch - Driver
1
5
11
24
1150 BK
A90 Logic
B+
G300

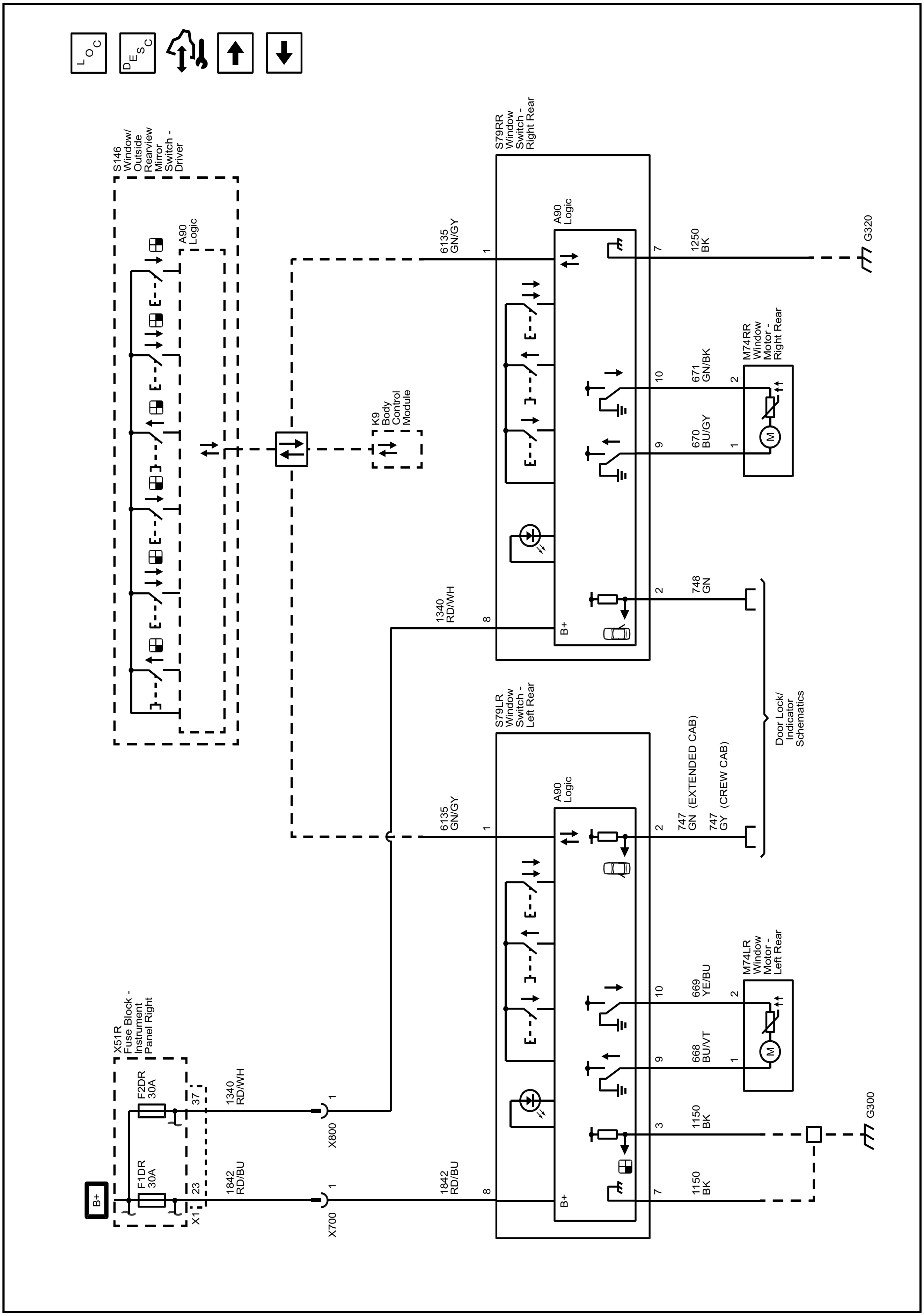
Moveable Window Schematics (Passenger Window (AED))


5255664
B+
X51R
Fuse Block - Instrument Panel Right
F2DR
30A
X1
25
1340
RD/WH
47
X600
1340
RD/WH
3
X605
1340
RD/WH
8
S146
Window/ Outside Rearview Mirror Switch - Driver
A90
Logic
24
1150
BK
G300
6134
GN/YE
1
S79P
Window Switch - Passenger
A90
Logic
B+
2
746
GY
Door Lock/ Indicator Schematics
10
3388
YE/BU
9
3387
GN/GY
X605
8
3388
YE/BU
7
3387
GN/GY
M74P
Window Motor - Passenger
2
1
M
7
1250
BK
G320

Moveable Window Schematics (Passenger Window (AEF))

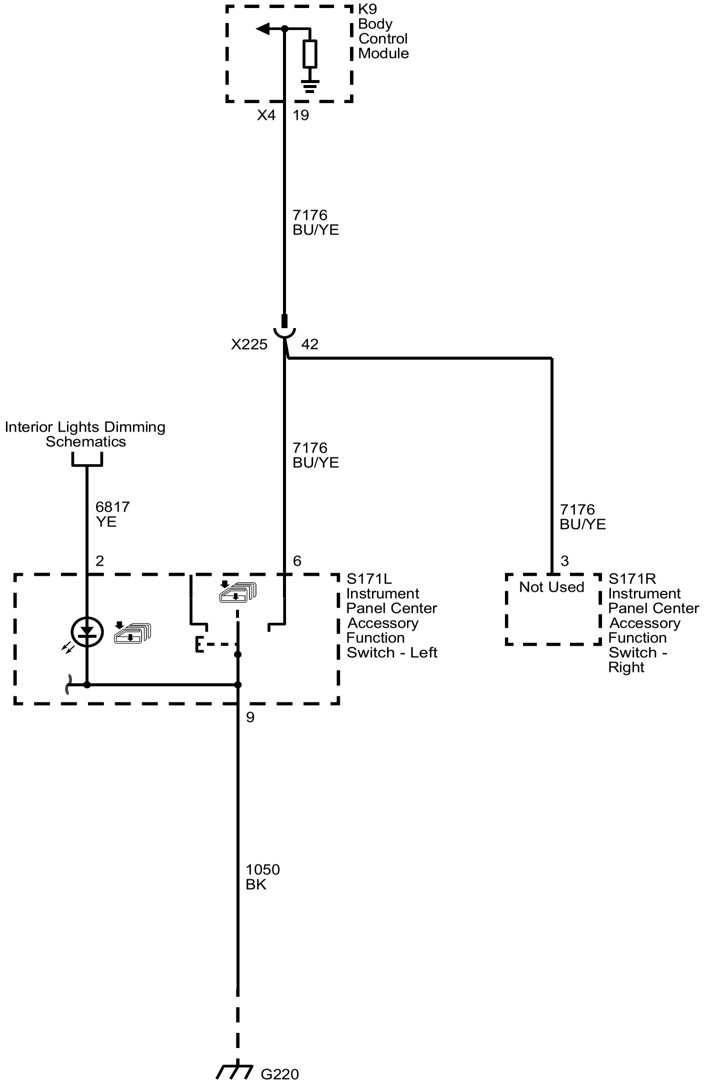

L O C
D E S C
S146 Window/ Outside Rearview Mirror Switch - Driver
A90 Logic
24
1150 BK
G300
B+
X51R Fuse Block - Instrument Panel Right
F2DR 30A
X1 25
1340 RD/WH
X600 47
1340 RD/WH
X605 3
1340 RD/WH
J601
1340 RD/WH
23
S79P Window Switch - Passenger
A90 Logic
B+
Interior Lights Dimming Schematics
11
13
1
24
3384 YE/BK
3386 VT/GY
3385 BN/YE
X605 25
34
28
1250 BK
Door Lock/ Indicator Schematics
6134 GN/YE
746 GY
4
2
6
3
5
7
K9 Body Control Module
B+
A90 Logic
M74P Window Motor - Passenger
M
1
1250 BK
G320
5255666

Moveable Window Schematics (Rear Windows (AEQ))


L O C
D E S C
B+
X51R Fuse Block - Instrument Panel Right
F1DR 30A
F2DR 30A
X1
23
37
1842 RD/BU
1340 RD/WH
X700
X800
1
1
S146 Window/ Outside Rearview Mirror Switch - Driver
A90 Logic
K9 Body Control Module
S79LR Window Switch - Left Rear
S79RR Window Switch - Right Rear
6135 GN/GY
1340 RD/WH
1842 RD/BU
8
1
2
3
7
9
10
B+
747 GN (EXTENDED CAB)
747 GY (CREW CAB)
748 GN
Door Lock/ Indicator Schematics
669 YE/BU
668 BU/VT
671 GN/BK
670 BU/GY
M74LR Window Motor - Left Rear
M74RR Window Motor - Right Rear
M
1150 BK
1250 BK
G300
G320

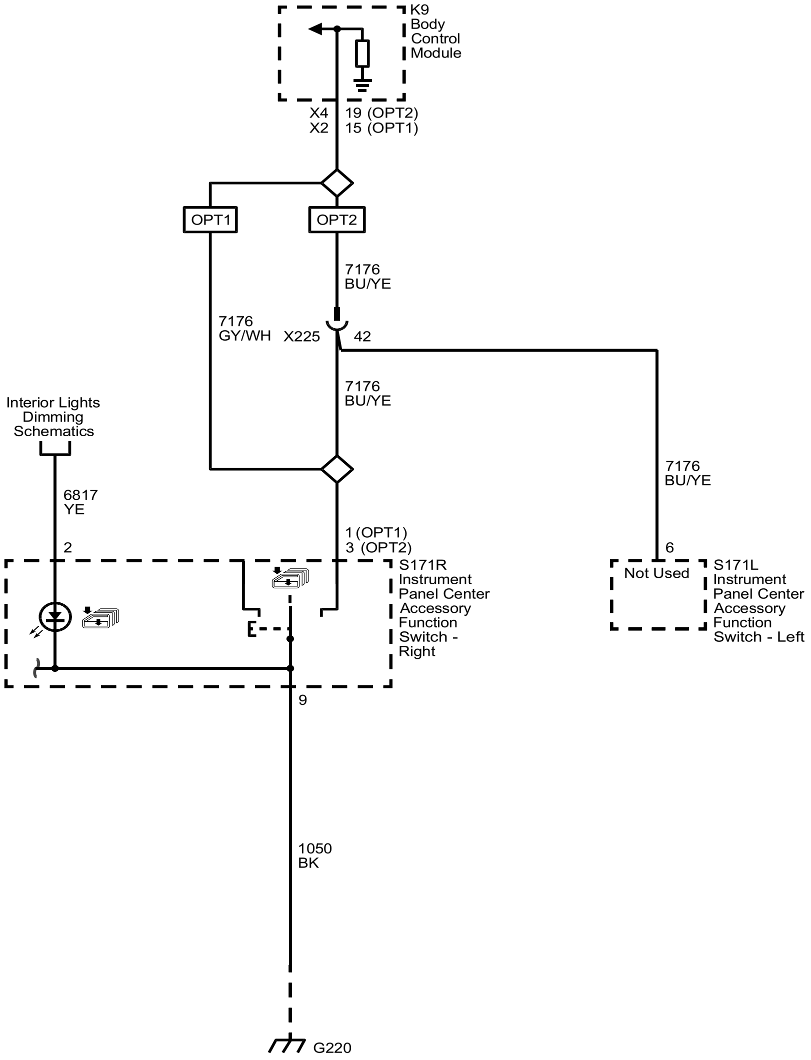
5255667

Moveable Window Schematics (Global Window Express Down Switch (WLD) (In Left IP Accessory Function Switch))


K9
Body
Control
Module
X4
19
7176
BU/YE
X225
42
7176
BU/YE
7176
BU/YE
Interior Lights Dimming
Schematics
6817
YE
2
6
3
Not Used
S171L
Instrument
Panel Center
Accessory
Function
Switch - Left
S171R
Instrument
Panel Center
Accessory
Function
Switch -
Right
9
1050
BK
G220

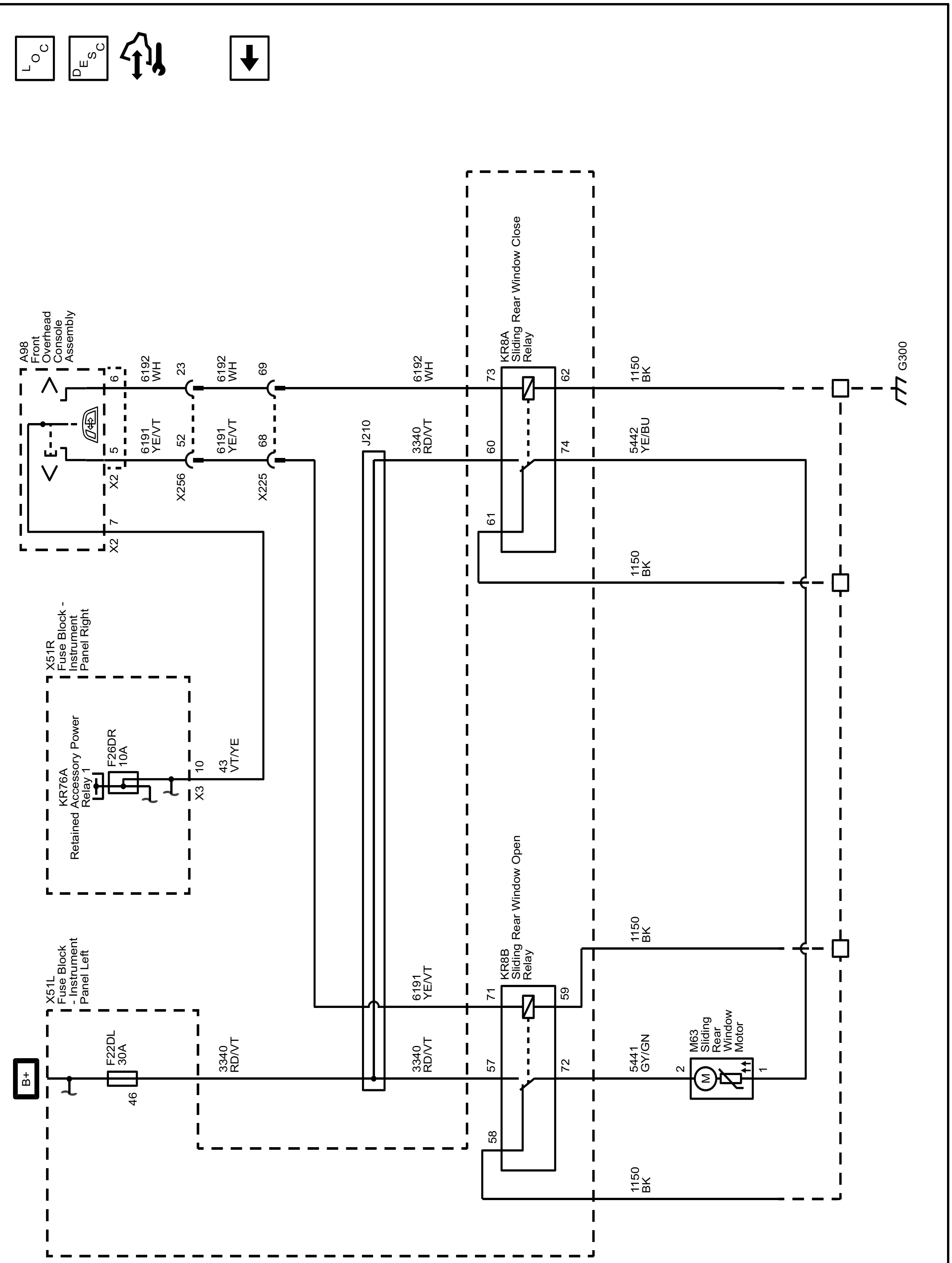
5255668

Moveable Window Schematics (Global Window Express Down Switch (WLD) (In Right IP Accessory Function Switch))

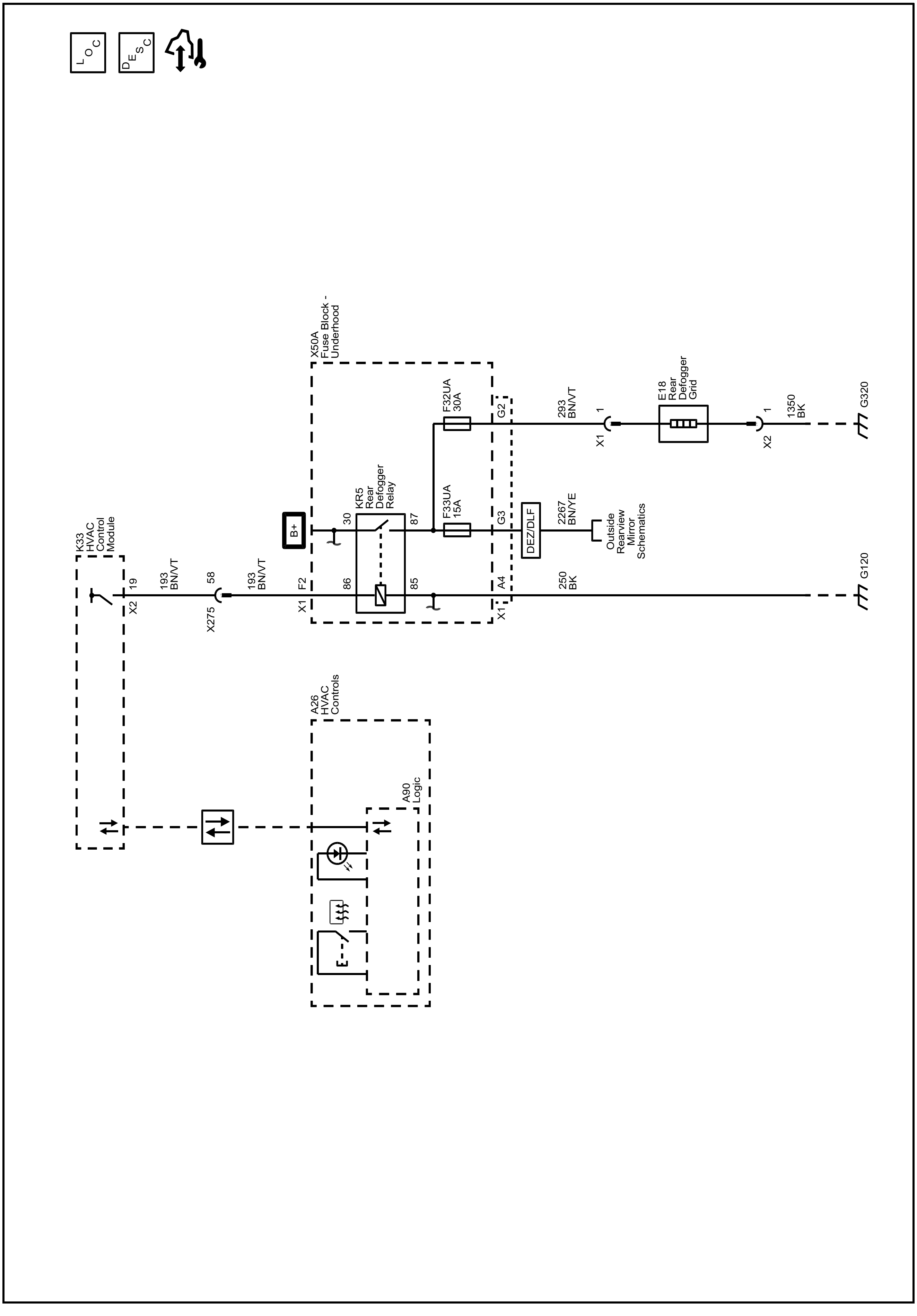

K9
Body
Control
Module
X4 19 (OPT2)
X2 15 (OPT1)
OPT1
OPT2
7176
BU/YE
7176
GY/WH
X225
42
7176
BU/YE
7176
BU/YE
Interior Lights
Dimming
Schematics
6817
YE
2
1 (OPT1)
3 (OPT2)
S171R
Instrument
Panel Center
Accessory
Function
Switch -
Right
6
Not Used
S171L
Instrument
Panel Center
Accessory
Function
Switch - Left
9
1050
BK
G220

5255669

Moveable Window Schematics (Rear Sliding Window (A48))


5255670
LOC
DESC
B+
X51L Fuse Block - Instrument Panel Left
F22DL 30A
46
3340 RD/VT
X51R Fuse Block - Instrument Panel Right
KR76A Retained Accessory Power Relay 1
F26DR 10A
X3 10
43 VT/YE
A98 Front Overhead Console Assembly
X2 7
X2 5
6
6191 YE/VT
6192 WH
X256 52
23
X225 68
69
J210
3340 RD/VT
6191 YE/VT
KR8A Sliding Rear Window Close Relay
73
60
61
62
74
KR8B Sliding Rear Window Open Relay
71
57
58
59
72
1150 BK
5442 YE/BU
5441 GY/GN
M63 Sliding Rear Window Motor
M
2
1
G300

Defogger Schematics (Defogger)


5255672
LOC
DESC
K33 HVAC Control Module
X2 19
193 BN/VT
X275 58
193 BN/VT
X50A Fuse Block - Underhood
X1 F2
B+
30
KR5 Rear Defogger Relay
86
85
87
F33UA 15A
F32UA 30A
G2
G3
A4
X1
DEZ/DLF
2267 BN/YE
Outside Rearview Mirror Schematics
293 BN/VT
250 BK
1
X1
E18 Rear Defogger Grid
1
X2
1350 BK
G320
G120
A26 HVAC Controls
A90 Logic

Description and Operation

Power Windows Description and Operation

Power Windows System Components

The power window system consists of the following components:

- Driver window switch
- Passenger window switch
- Left rear window switch
- Right rear window switch
- Global express down window switch
- Window motors in each of the doors
- 30A Fuse
- Body control module (BCM)

Power Window System

This vehicle may be equipped with the following power window configurations:

- Driver door with express up and express down window motor
- Passenger door with express up and express down window motor
- Passenger door with express down only window motor
- Left rear door with express down only window motor
- Right rear door with express down only window motor

Driver and Passenger Express Up and Express Down Power Window Motors

The driver and passenger doors contains a window motor is smart motor that will detect excessive resistance while performing the express up function and automatically reverse direction to prevent injury to any occupants that may become trapped between the closing window and the door frame. The automatic reverse safety feature can be overridden by pulling and holding the window switch.

The logic circuit within the window motor monitors the up, down and express signal circuits which are normally equal to B+ voltage. When a switch is used on the window switch, the contacts close causing a voltage drop within the appropriate signal circuit. The window motor will detect the voltage drop and will command the window to move in the direction requested.

The driver window switch communicates to the BCM by a serial data circuit. When the driver wishes to control the passenger window, the driver will use the appropriate switch on the driver window switch. When this switch is used, a serial data message is sent to the BCM requesting the passenger window motor command, the BCM will then send a serial data message to the passenger window motor which will then move in the direction requested.

Passenger, Left Rear and Right Rear Express Down Only Window Motors

For the passenger, right rear and left rear doors, when their window switch is pressed in the down position, battery positive voltage is applied to their respective window motor control circuit and ground to the other window motor control circuit causing that window to open. When the individual window switch is pulled in the up position, voltage and ground is applied to the window motor in the opposite direction causing that window to close. The return path to ground is supplied through the inactive control circuit being normally grounded through the window switch.

The passenger and rear window switches communicates to the BCM by a serial data circuit. When the driver wishes to control the passenger, left rear or right rear window, the driver will use the appropriate switch on the driver window switch. When this switch is used, a serial data message is sent to the BCM requesting a window motor command, the BCM will then send a serial data message to the appropriate door window switch which will then command that window to move in the direction requested.

Global Window Express Down Switch

The global express down switch (part of the instrument panel multifunction switch) may be used to commanded all windows to perform the express down function

Lockout Switch Feature

The driver window switch contains a window lockout switch, when the driver presses the window lockout switch, a serial data message is sent to the BCM which will send a disable command to the rear window switches, deactivating them. The rear windows will still function normally from the switches on the driver window switch.

Power Sliding Rear Window

NOTE: Power window lockout switch disables left rear and right rear passenger window switches only and has no effect on the operation of the power sliding window switch.

The power sliding rear window motor is controlled from the rear window OPEN/CLOSE switch through OPEN and CLOSE relays. The OPEN/CLOSE switch is supplied voltage from the body control module accessory voltage output circuit. When the switch is pressed in the OPEN or CLOSED position the OPEN or CLOSED relay coil will be supplied accessory voltage and energized through the appropriate relay control circuit. While the OPEN and CLOSE relays are in a de-energized state both motor control circuits will be closed to ground. When one of the relays is energized its motor control circuit will be closed to the battery voltage supply circuit and the other motor control circuit will remain grounded through the de-energized relay.

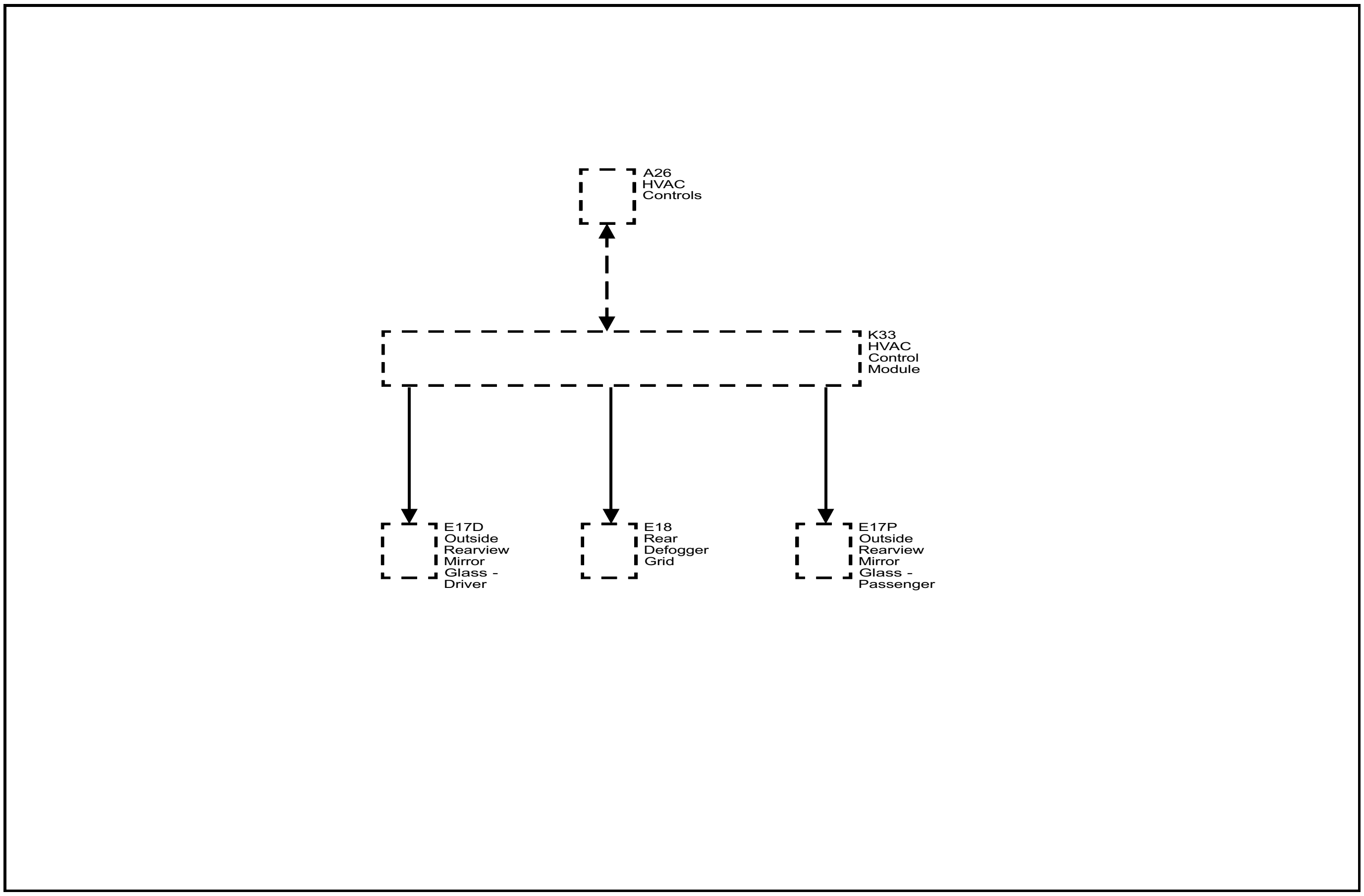
Rear Window Defogger Description and Operation

Rear Window Defogger System Components

The rear window defogger system consists of the following components:

- HVAC Control Module
- HVAC Controls
- Rear Defogger Relay
- Rear Defogger Grid
- Driver Outside Rearview Mirror
- Passenger Outside Rearview Mirror
- 40A Fuse

A26-K33-X50A Defogger Block Diagram



3511665

Rear Window Defogger Operation

The rear defog control system utilizes a single zone backlight design, driven with a single relay configuration. Additionally, up to two outside rear view mirrors can be heated if required. A switch for the customer to control the system is provided within the HVAC controls. Also included in the HVAC controls is an indicator to inform the customer with the current state of the system. The system is only operational when engine is running or during remote start.

Pressing the heated rear window switch causes the HVAC controls to send a serial data message to the HVAC control module requesting rear window defog operation. The HVAC control module upon receipt of the serial data message will provide voltage to the coil side of the rear defogger relay, this will energize the relay causing the relay switch contacts to close allowing B+ voltage to flow through the rear defogger grid control circuit to the rear defogger grid.

When the rear heated rear window switch is pressed and the engine is running, the rear window defogger grid will activate and will turn off automatically depending upon the vehicle speed (refer to owner’s manual for rear window defogger operation cycles)

Heated Mirrors

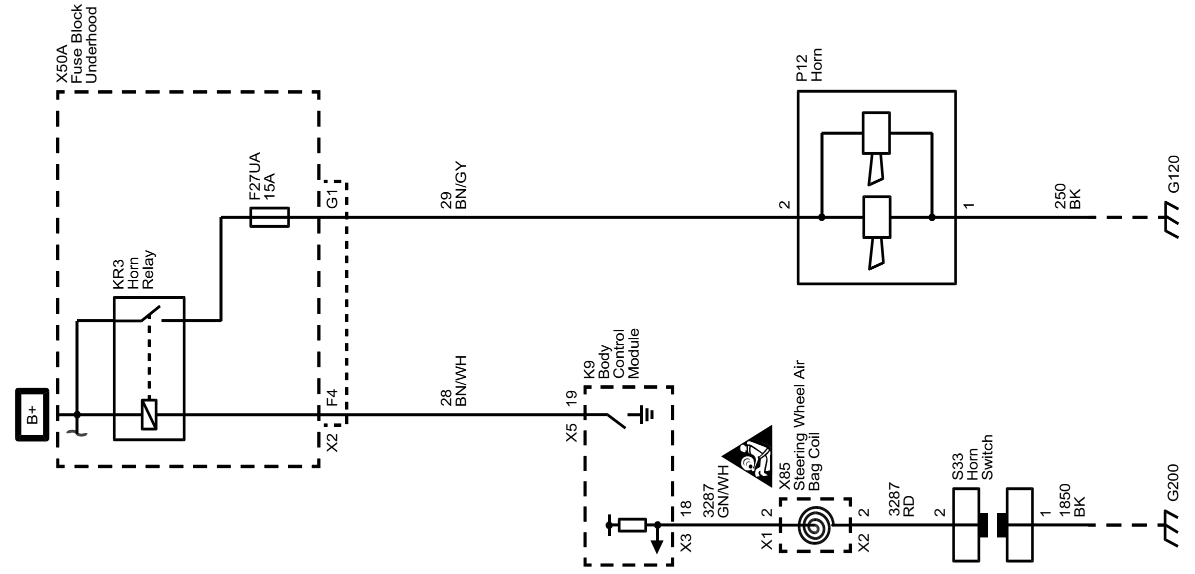
The heated mirrors are also controlled through the rear defogger relay. Whenever the rear window defogger is turned on battery voltage is supplied to the mirror heater elements through the left and right mirror heater element control circuits.

Horns and Pedestrian Alerts

Schematic and Routing Diagrams

Horn Schematics (Horn)

5255673


X50A
Fuse Block - Underhood
B+
KR3
Horn
Relay
F27UA
15A
G1
F4
X2
29
BN/GY
28
BN/WH
P12
Horn
2
1
250
BK
G120
K9
Body
Control
Module
X5
19
18
X3
3287
GN/WH
X85
Steering Wheel Air Bag Coil
X1
2
2
X2
3287
RD
S33
Horn
Switch
2
1
1850
BK
G200

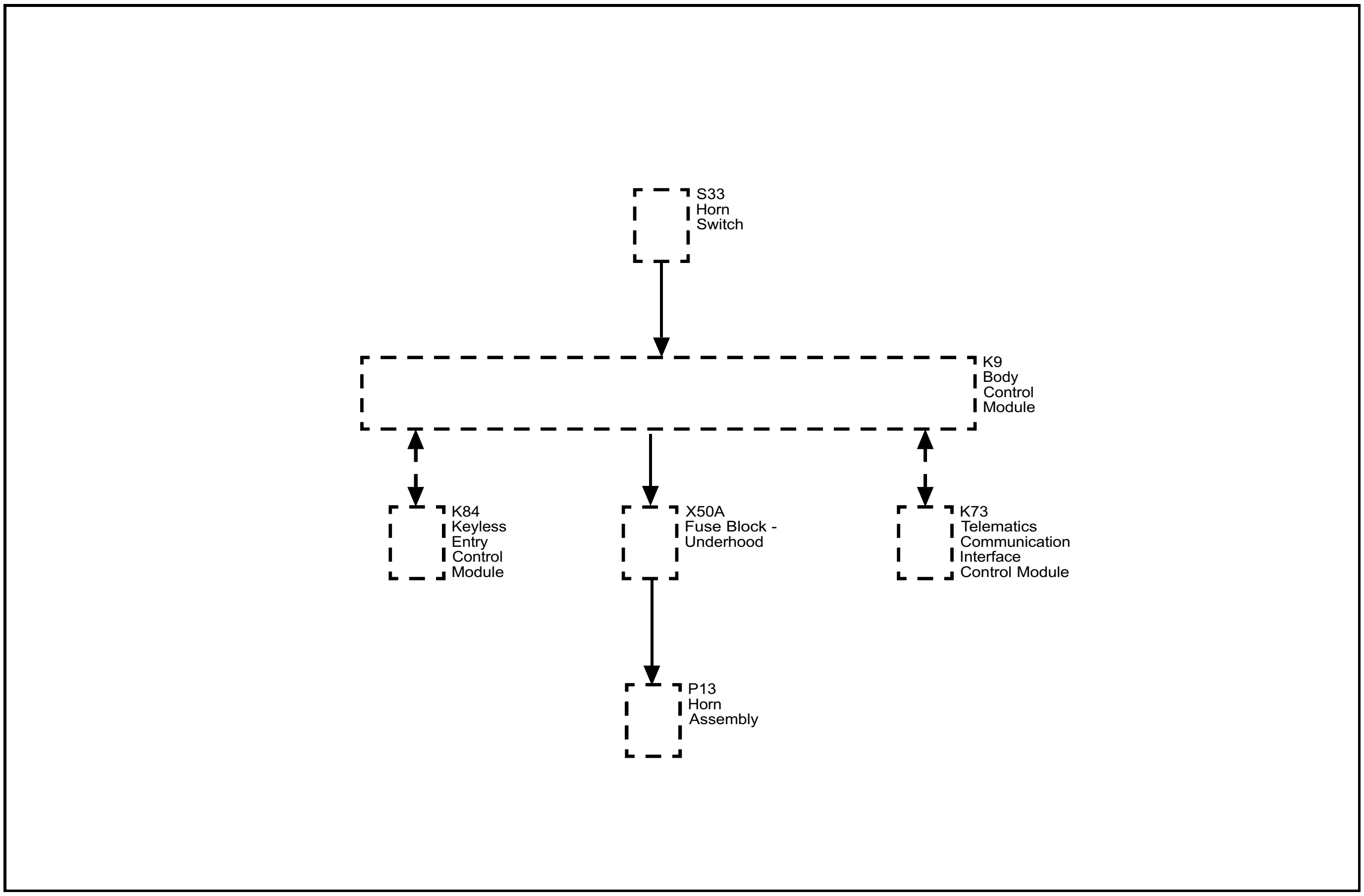
Description and Operation

Horns System Description and Operation

System Description

The horn system consists of the following components:

- HORN fuse
- Underhood fuse block (Contains PCB horn relay)
- Horn switch
- Horn assembly
- Body control module (BCM)



3270443

System Operation

The vehicle horn system is activated under the following conditions:

- When the horn switch is depressed
- The BCM commands the horns ON under any of the following conditions:
  - When the content theft deterrent system detects a vehicle intrusion—For further information refer to Theft Systems Description and Operation.
  - When the panic button is depressed on the remote control door lock transmitter—For further information refer to *Keyless Entry System Description and Operation on page 8-19*.
  - When the keyless entry system is used to lock the vehicle, a horn chirp may sound to notify the driver that the vehicle has been locked. The notification feature may be enabled or disabled through personalization. For further information refer to *Keyless Entry System Description and Operation on page 8-19*.
  - When the OnStar® system is used to sound the horns if equipped—For further information, refer to OnStar Description and Operation.

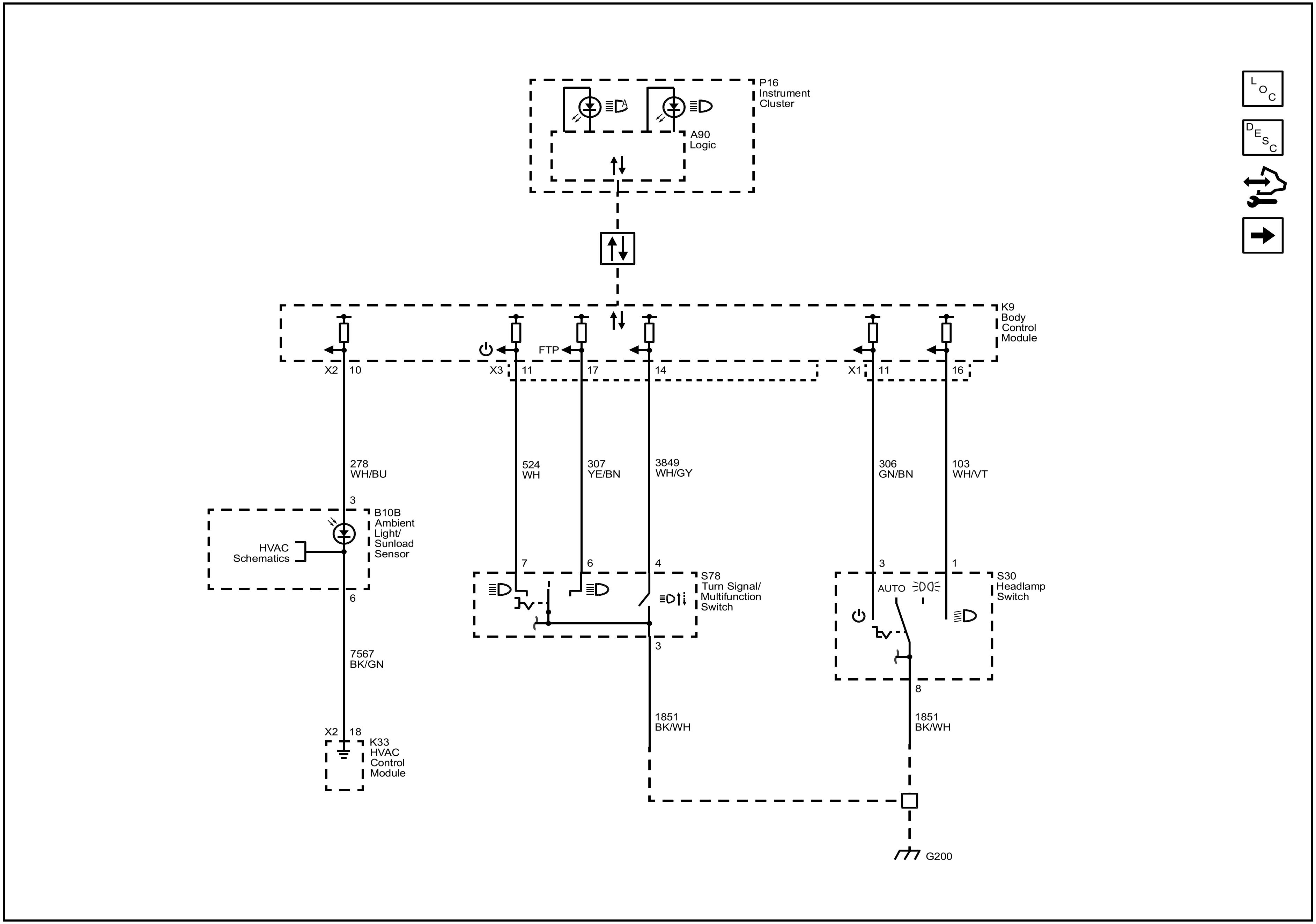
Circuit Operation

Battery positive voltage is applied at all times to the horn relay coil and the horn relay switch. Pressing either of the horn switches applies ground to the horn relay control circuit. The BCM may also apply ground to the horn relay control circuit as described above. When the horn relay control circuit is grounded, the horn relay is energized and battery positive voltage is applied to the horns through the horn control circuit. The horns sound as long as ground is applied to the horn relay control circuit.

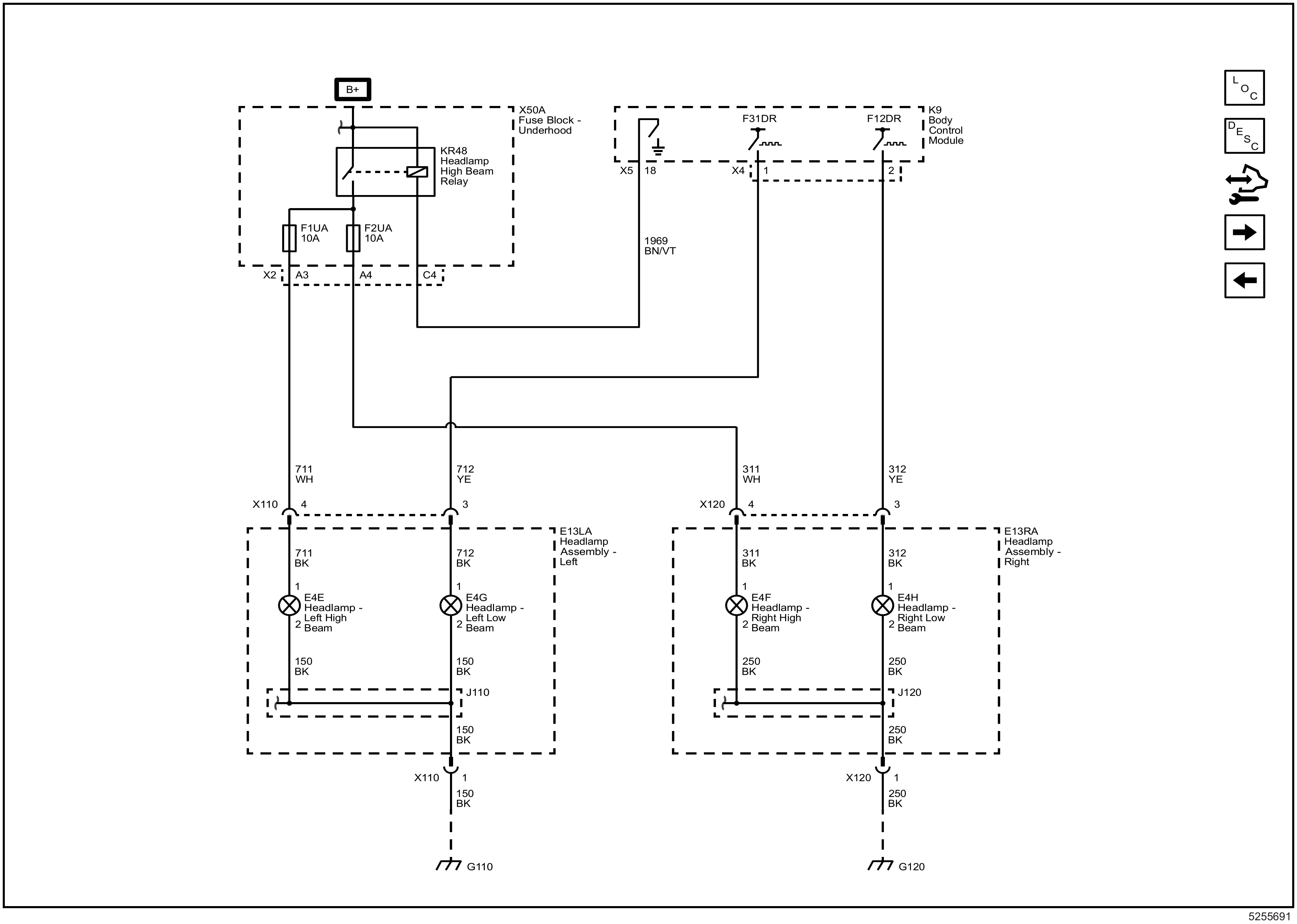
Lighting

Schematic and Routing Diagrams

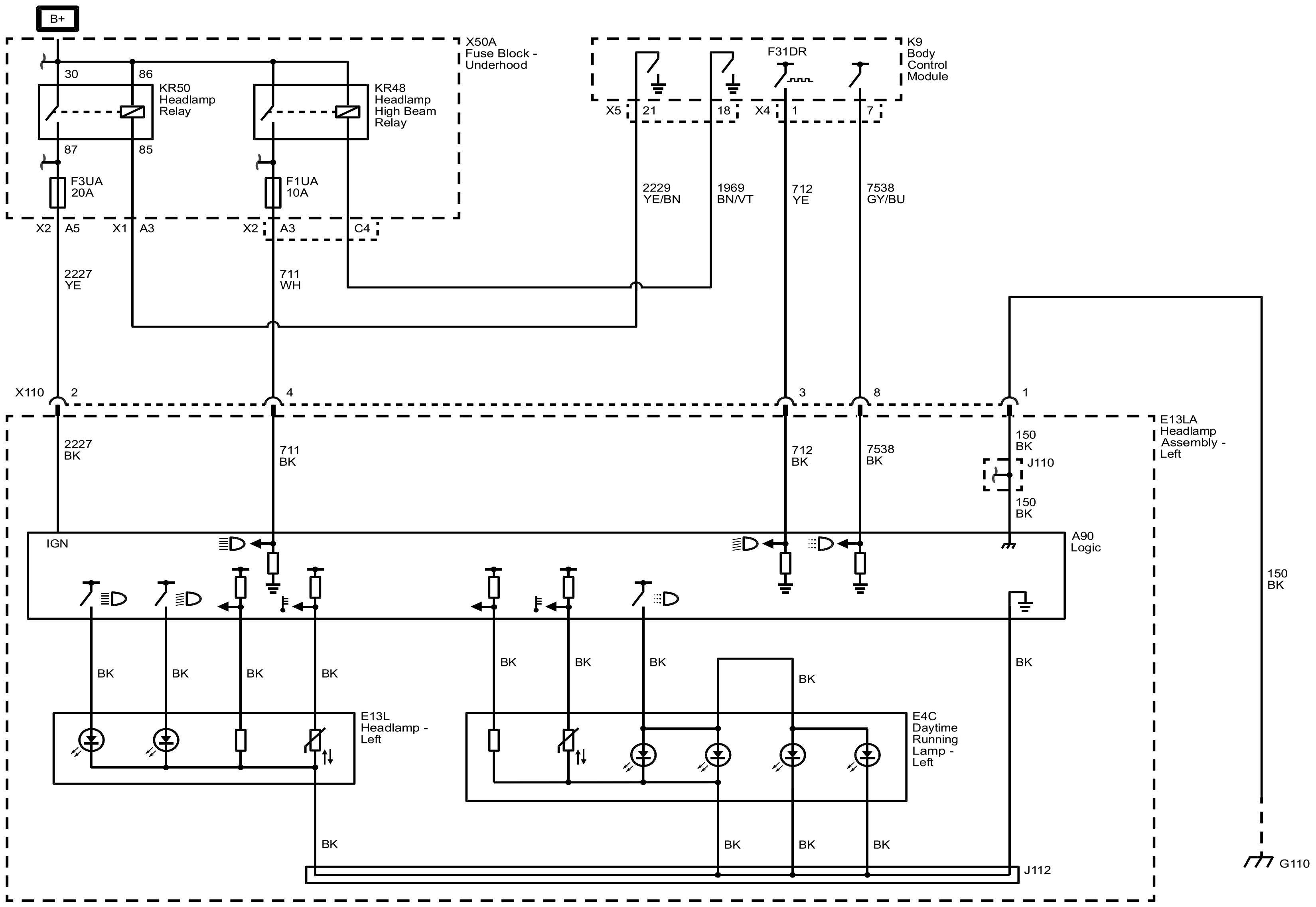
Headlights/Daytime Running Lights (DRL) Schematics (Controls and Indicators)


L O C
D E S C
P16
Instrument
Cluster
A90
Logic
K9
Body
Control
Module
X2
10
X3
11
FTP
17
14
X1
11
16
278
WH/BU
524
WH
307
YE/BN
3849
WH/GY
306
GN/BN
103
WH/VT
3
B10B
Ambient
Light/
Sunload
Sensor
HVAC
Schematics
6
7
6
4
S78
Turn Signal/
Multifunction
Switch
3
1
S30
Headlamp
Switch
AUTO
3
8
7567
BK/GN
1851
BK/WH
1851
BK/WH
X2
18
K33
HVAC
Control
Module
G200
5255688

Headlights/Daytime Running Lights (DRL) Schematics (Headlamps (GF2/GF5/GPZ))

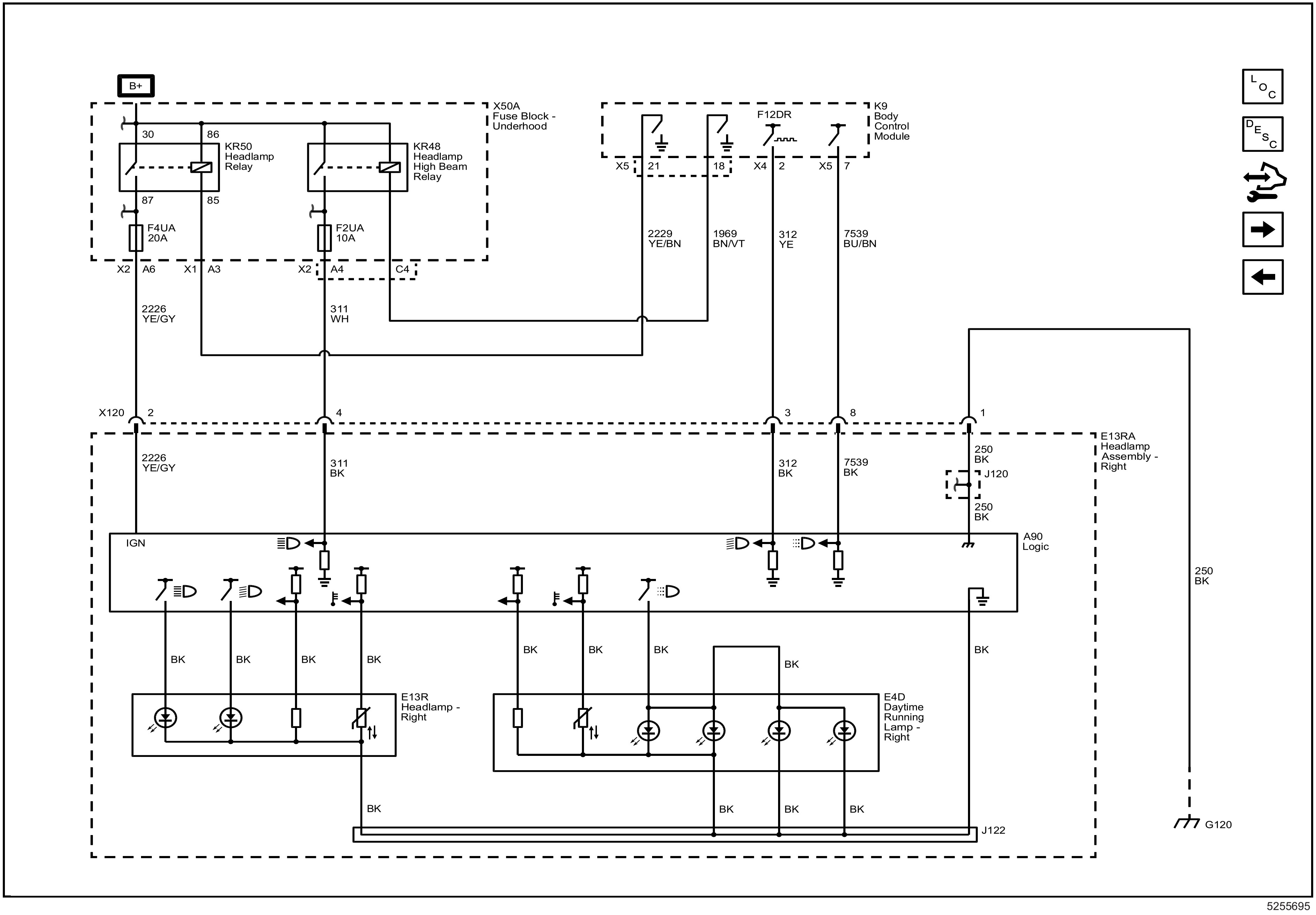

B+
X50A
Fuse Block -
Underhood
KR48
Headlamp
High Beam
Relay
F1UA
10A
F2UA
10A
X2
A3
A4
C4
K9
Body
Control
Module
F31DR
F12DR
X5
18
X4
1
2
1969
BN/VT
711
WH
712
YE
311
WH
312
YE
X110
4
3
X120
4
3
E13LA
Headlamp
Assembly -
Left
E13RA
Headlamp
Assembly -
Right
711
BK
712
BK
311
BK
312
BK
1
2
E4E
Headlamp -
Left High
Beam
E4G
Headlamp -
Left Low
Beam
E4F
Headlamp -
Right High
Beam
E4H
Headlamp -
Right Low
Beam
150
BK
250
BK
J110
J120
X110
1
X120
1
G110
G120
5255691

Headlights/Daytime Running Lights (DRL) Schematics (Headlamps and Daytime Running Lamps - Left (GF3/GF4/GF9/GFC))

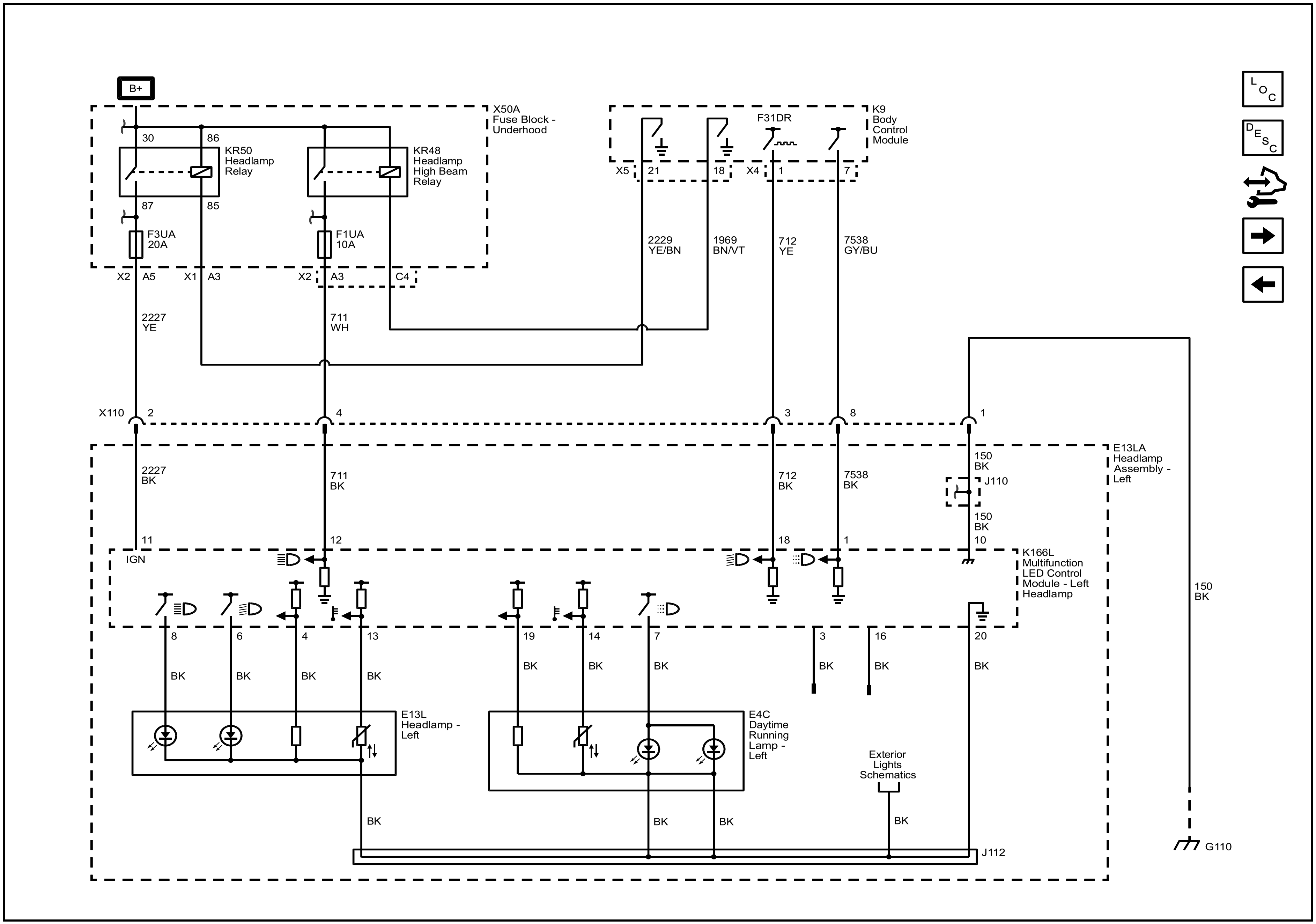

B+
X50A
Fuse Block -
Underhood
30
86
KR50
Headlamp
Relay
87
85
F3UA
20A
KR48
Headlamp
High Beam
Relay
F1UA
10A
X2
A5
X1
A3
X2
A3
C4
2227
YE
711
WH
K9
Body
Control
Module
F31DR
X5
21
18
X4
1
7
2229
YE/BN
1969
BN/VT
712
YE
7538
GY/BU
X110
2
4
3
8
1
E13LA
Headlamp
Assembly -
Left
2227
BK
711
BK
712
BK
7538
BK
150
BK
J110
150
BK
IGN
A90
Logic
150
BK
BK
BK
BK
BK
BK
BK
BK
BK
BK
BK
E13L
Headlamp -
Left
E4C
Daytime
Running
Lamp -
Left
BK
BK
BK
BK
J112
G110

5255693

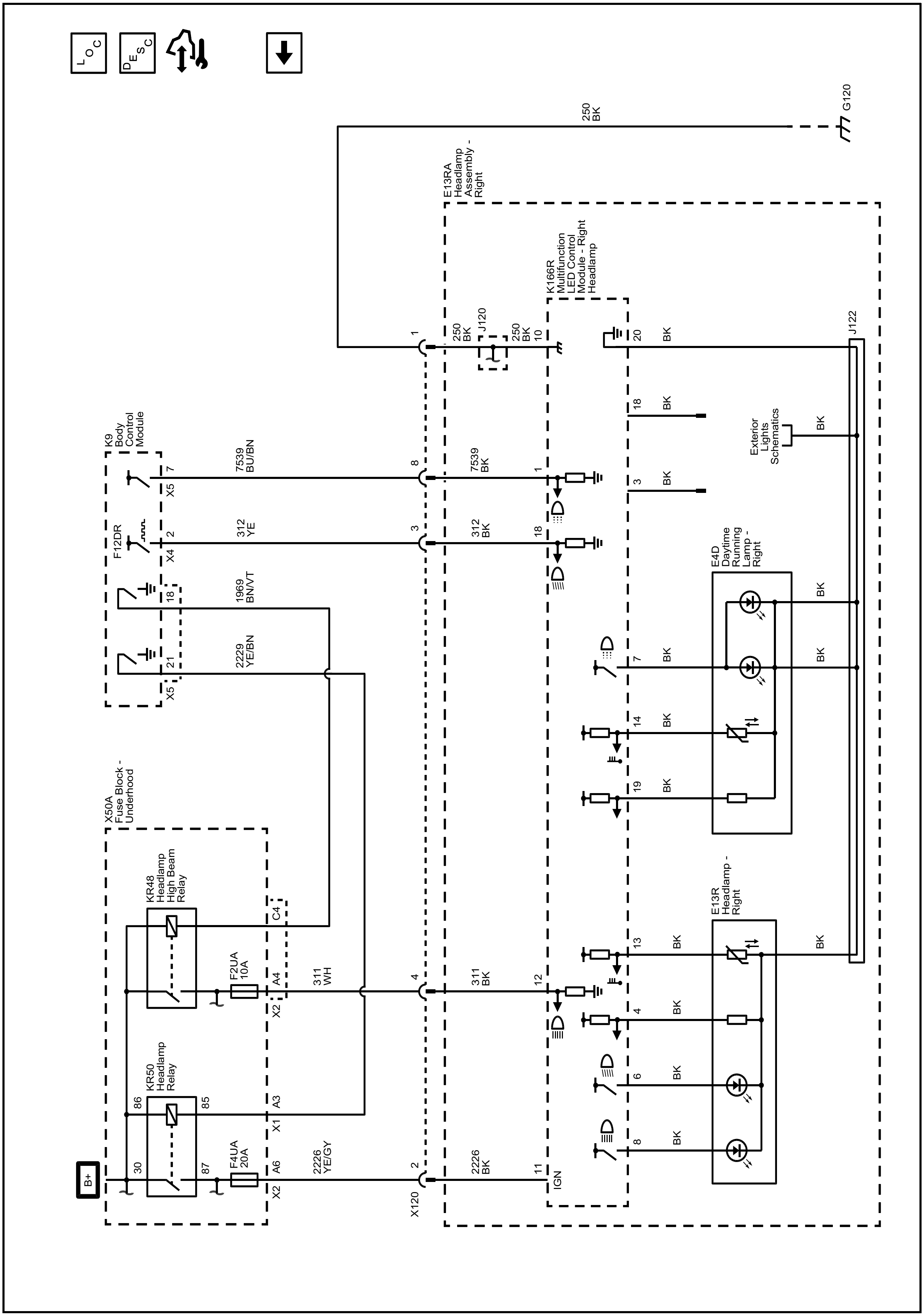
Headlights/Daytime Running Lights (DRL) Schematics (Headlamps and Daytime Running Lamps - Right (GF3/GF4/GF9/GFC))


B+
X50A Fuse Block - Underhood
30
86
KR50 Headlamp Relay
87
85
KR48 Headlamp High Beam Relay
F4UA 20A
F2UA 10A
X2 A6
X1 A3
X2 A4
C4
2226 YE/GY
311 WH
K9 Body Control Module
F12DR
X5 21
18
X4 2
X5 7
2229 YE/BN
1969 BN/VT
312 YE
7539 BU/BN
X120 2
4
3
8
1
E13RA Headlamp Assembly - Right
2226 YE/GY
311 BK
312 BK
7539 BK
250 BK
J120
250 BK
A90 Logic
IGN
BK
E13R Headlamp - Right
E4D Daytime Running Lamp - Right
J122
250 BK
G120
L O C
D E S C
5255695

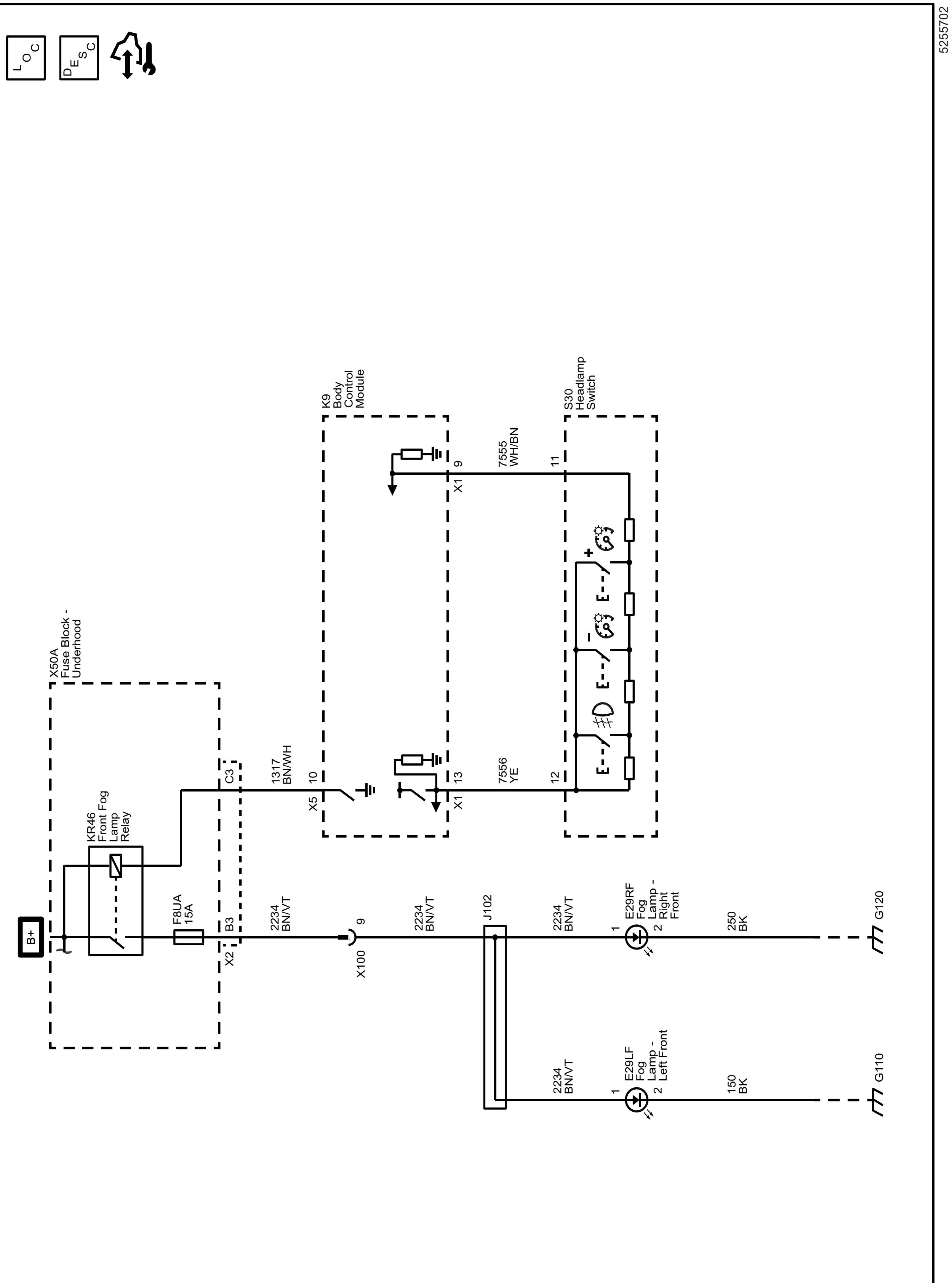
Headlights/Daytime Running Lights (DRL) Schematics (Headlamps and Daytime Running Lamps - Left (GFD))


B+
X50A Fuse Block - Underhood
30
86
KR50 Headlamp Relay
87
85
F3UA 20A
KR48 Headlamp High Beam Relay
F1UA 10A
X2 A5
X1 A3
X2 A3
C4
2227 YE
711 WH
K9 Body Control Module
F31DR
X5 21
18
X4 1
7
2229 YE/BN
1969 BN/VT
712 YE
7538 GY/BU
X110 2
4
3
8
1
E13LA Headlamp Assembly - Left
2227 BK
711 BK
712 BK
7538 BK
150 BK
J110
150 BK
11
12
18
1
10
IGN
K166L Multifunction LED Control Module - Left Headlamp
8
6
4
13
19
14
7
3
16
20
BK
E13L Headlamp - Left
E4C Daytime Running Lamp - Left
Exterior Lights Schematics
J112
150 BK
G110
5255698

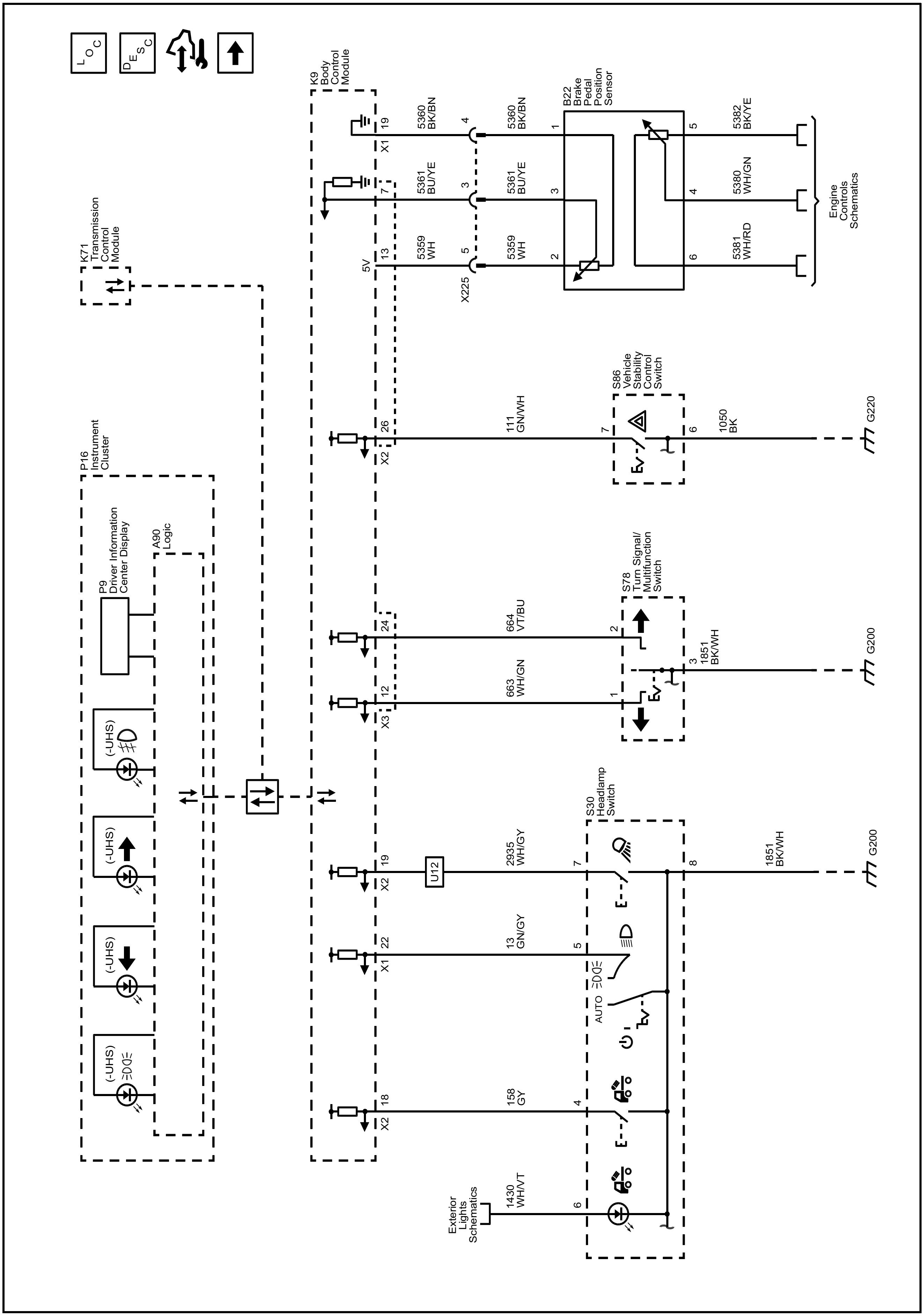
Headlights/Daytime Running Lights (DRL) Schematics (Headlamps and Daytime Running Lamps - Right (GFD))


B+
X50A Fuse Block - Underhood
KR50 Headlamp Relay
30
86
85
87
KR48 Headlamp High Beam Relay
F4UA 20A
F2UA 10A
A6
X2
A3
X1
A4
X2
C4
2226 YE/GY
311 WH
K9 Body Control Module
X5
21
18
2229 YE/BN
1969 BN/VT
F12DR
X4
2
312 YE
X5
7
7539 BU/BN
X120
2
4
3
8
1
2226 BK
311 BK
312 BK
7539 BK
250 BK
J120
250 BK
10
E13RA Headlamp Assembly - Right
K166R Multifunction LED Control Module - Right Headlamp
11
IGN
12
18
1
20
BK
18
BK
3
BK
8
BK
6
BK
4
BK
13
BK
19
BK
14
BK
7
BK
E13R Headlamp - Right
E4D Daytime Running Lamp - Right
Exterior Lights Schematics
BK
BK
BK
BK
J122
250 BK
G120
5255700

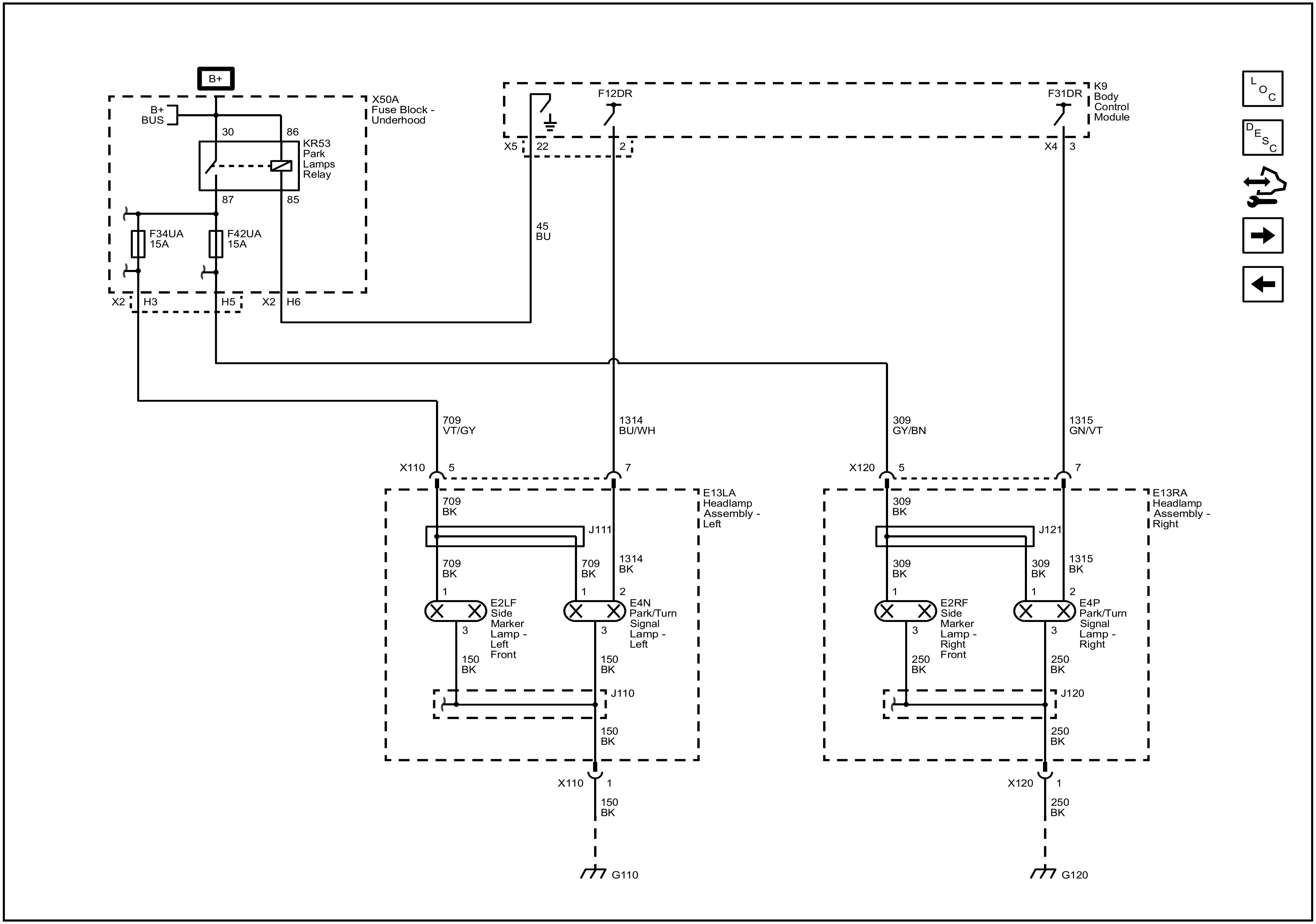
Fog Lights Schematics (Fog Lamps (T3U))


5255702
LOC
DESC
B+
X50A
Fuse Block - Underhood
KR46
Front Fog Lamp Relay
F8UA
15A
C3
B3
X2
1317
BN/WH
2234
BN/VT
X5
10
9
X100
K9
Body Control Module
X1
9
13
7555
WH/BN
7556
YE
S30
Headlamp Switch
11
12
+
–
J102
E29RF
Fog Lamp - Right Front
1
2
E29LF
Fog Lamp - Left Front
250
BK
150
BK
G120
G110

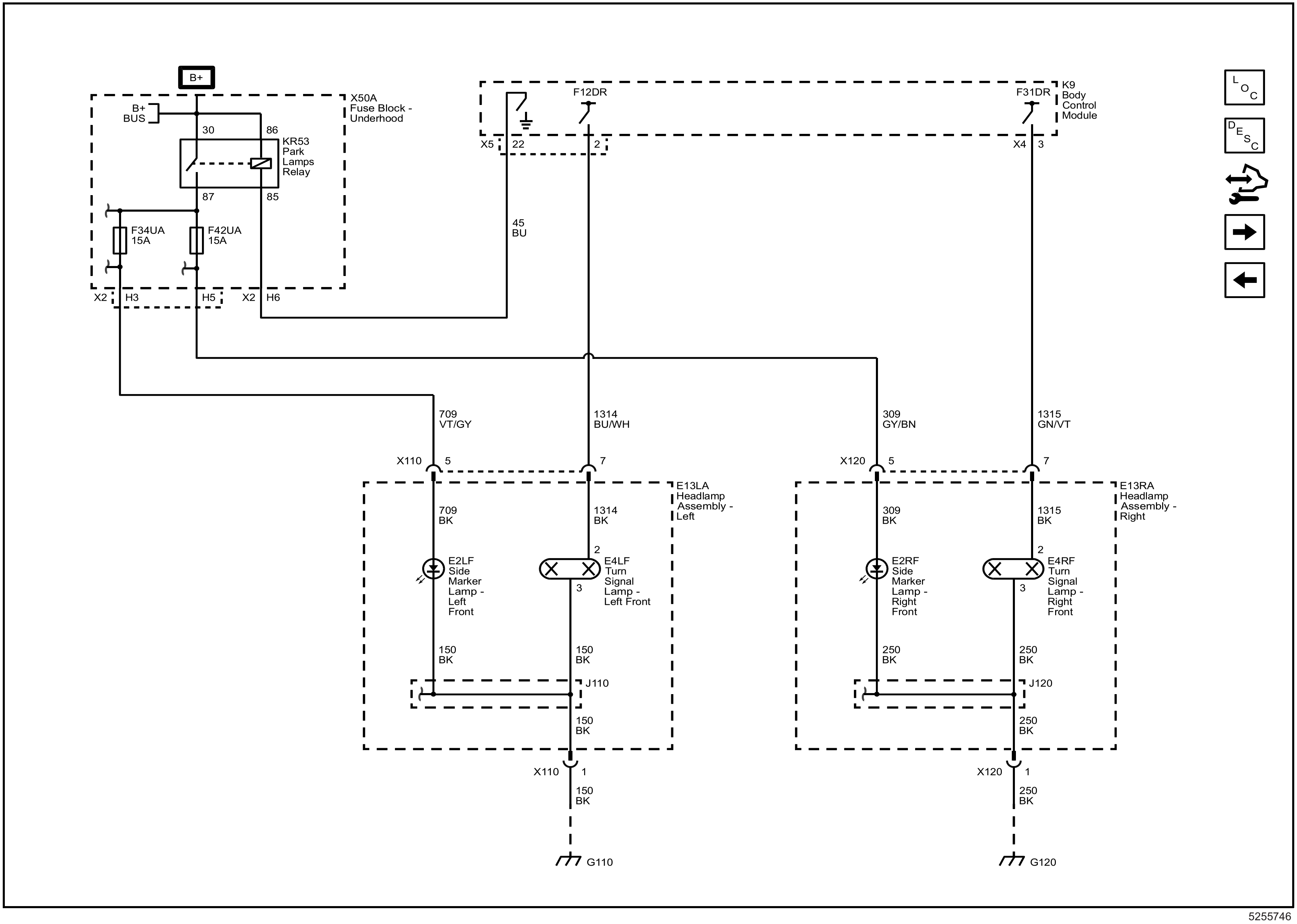
Exterior Lights Schematics (Controls and Indicators)


5255744
LOC
DESC
K71 Transmission Control Module
P16 Instrument Cluster
P9 Driver Information Center Display
A90 Logic
(-UHS)
(-UHS)
(-UHS)
(-UHS)
K9 Body Control Module
X1 19
5360 BK/BN
4
5360 BK/BN
1
B22 Brake Pedal Position Sensor
5
5382 BK/YE
7
5361 BU/YE
3
5361 BU/YE
3
4
5380 WH/GN
Engine Controls Schematics
5V
13
5359 WH
5
5359 WH
2
6
5381 WH/RD
X225
X2 26
111 GN/WH
7
S86 Vehicle Stability Control Switch
6
1050 BK
G220
X3 24
664 VT/BU
2
S78 Turn Signal/ Multifunction Switch
3
1851 BK/WH
G200
12
663 WH/GN
1
S30 Headlamp Switch
X2 19
U12
2935 WH/GY
7
8
1851 BK/WH
G200
X1 22
13 GN/GY
5
AUTO
X2 18
158 GY
4
Exterior Lights Schematics
1430 WH/VT
6

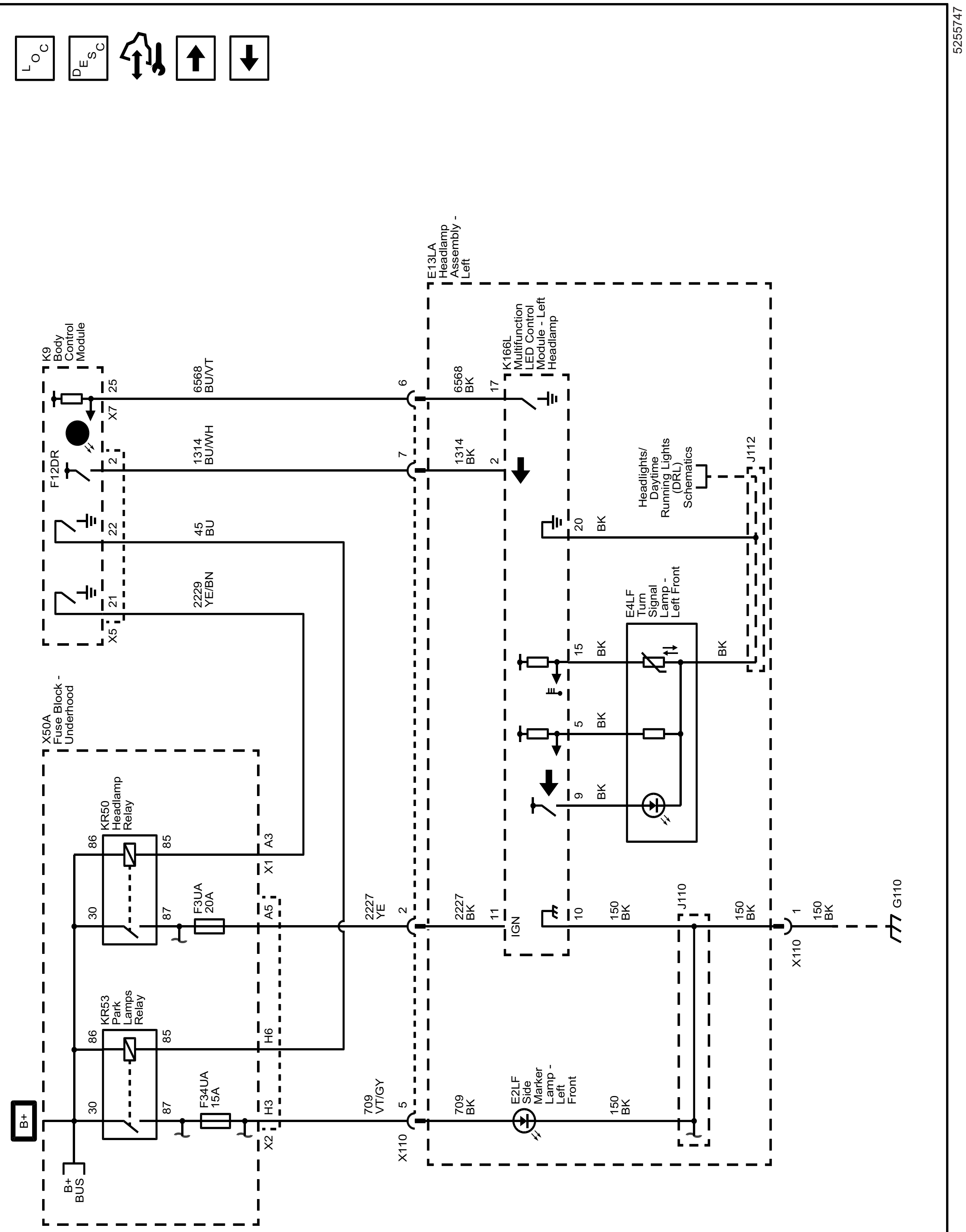
Exterior Lights Schematics (Front Turn Signals and Side Marker Lamps (GF2/GF5/GPZ))


B+
B+ BUS
X50A Fuse Block - Underhood
30
86
KR53 Park Lamps Relay
87
85
F34UA 15A
F42UA 15A
X2 H3
H5
X2 H6
45 BU
X5 22
2
F12DR
F31DR
K9 Body Control Module
X4 3
709 VT/GY
1314 BU/WH
309 GY/BN
1315 GN/VT
X110 5
7
X120 5
7
E13LA Headlamp Assembly - Left
709 BK
J111
709 BK
709 BK
1314 BK
1
1
2
E2LF Side Marker Lamp - Left Front
E4N Park/Turn Signal Lamp - Left
3
3
150 BK
150 BK
J110
150 BK
X110 1
150 BK
G110
E13RA Headlamp Assembly - Right
309 BK
J121
309 BK
309 BK
1315 BK
1
1
2
E2RF Side Marker Lamp - Right Front
E4P Park/Turn Signal Lamp - Right
3
3
250 BK
250 BK
J120
250 BK
X120 1
250 BK
G120
L O C
D E S C
5255745

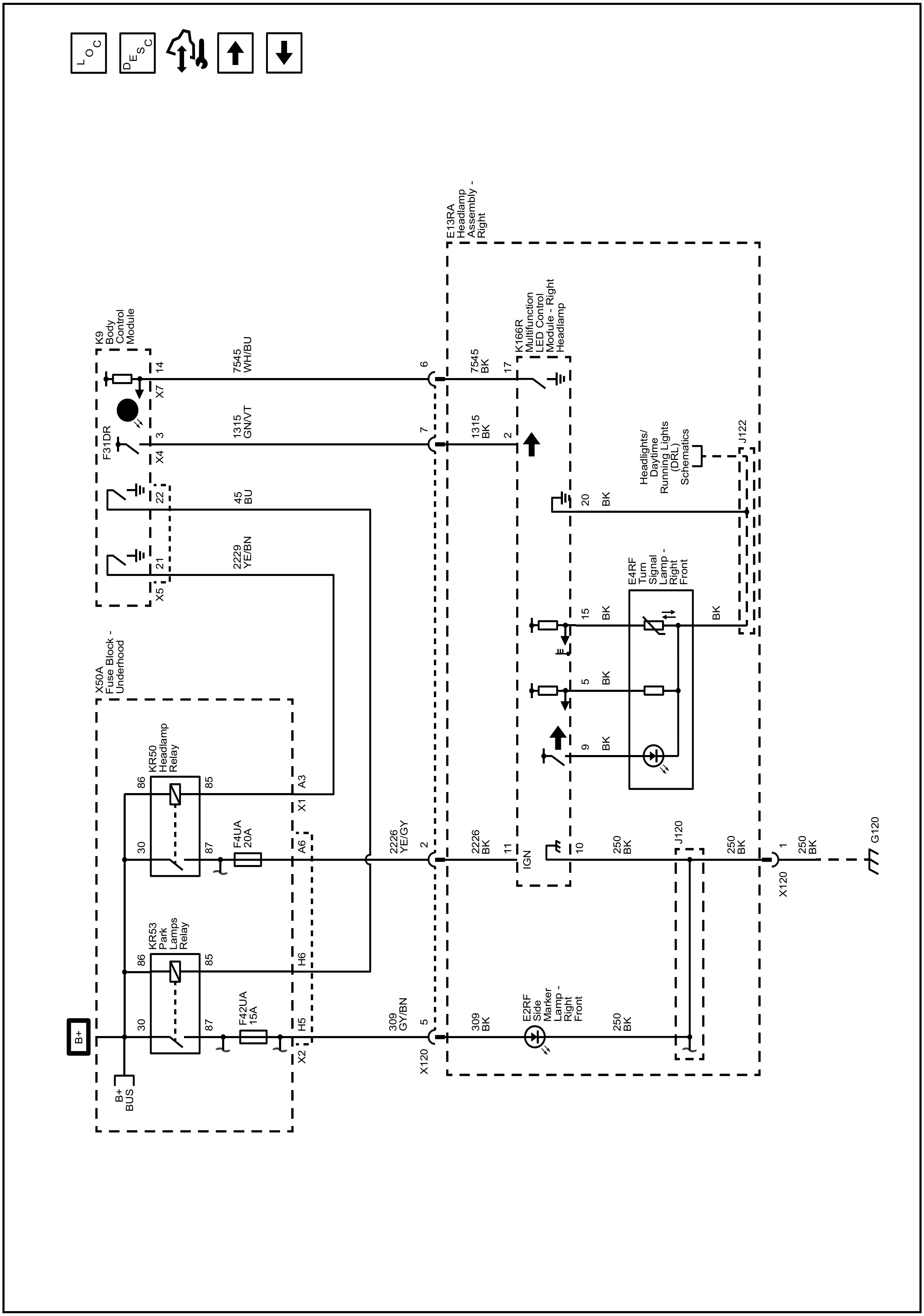
Exterior Lights Schematics (Front Turn Signals and Side Marker Lamps (GF3/GF4/GF9/GFC))


B+
B+ BUS
X50A Fuse Block - Underhood
30
86
KR53 Park Lamps Relay
87
85
F34UA 15A
F42UA 15A
X2 H3
H5
X2 H6
45 BU
X5 22
2
F12DR
F31DR
K9 Body Control Module
X4 3
709 VT/GY
1314 BU/WH
309 GY/BN
1315 GN/VT
X110 5
7
X120 5
7
E13LA Headlamp Assembly - Left
E13RA Headlamp Assembly - Right
709 BK
1314 BK
309 BK
1315 BK
2
E2LF Side Marker Lamp - Left Front
E4LF Turn Signal Lamp - Left Front
E2RF Side Marker Lamp - Right Front
E4RF Turn Signal Lamp - Right Front
3
150 BK
250 BK
J110
J120
X110 1
X120 1
G110
G120
L O C
D E S C
5255746

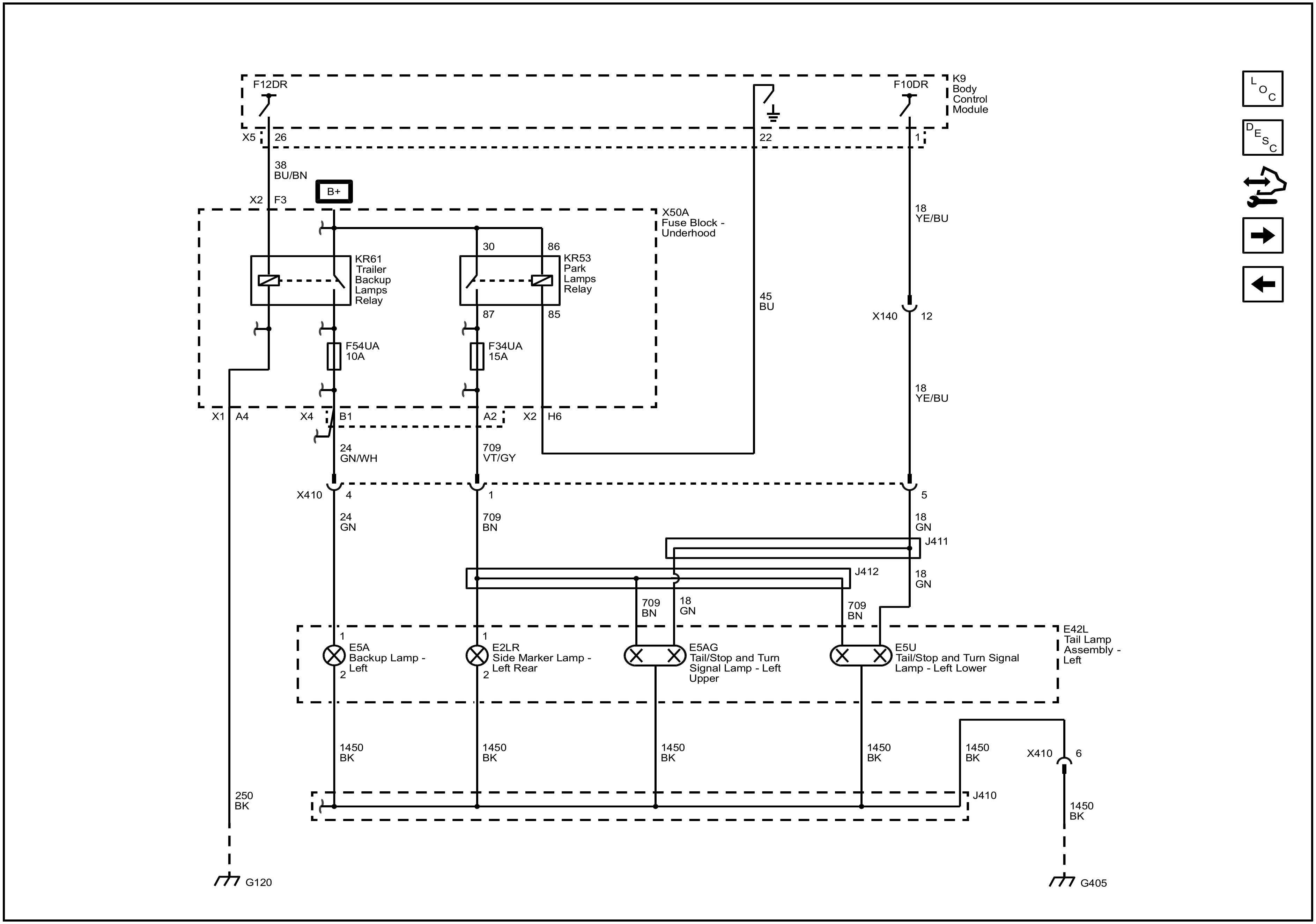
Exterior Lights Schematics (Front Turn Signals and Side Marker Lamps - Left (GFD))


5255747
L O C
D E S C
K9 Body Control Module
X7 25
X5 21 22 2
F12DR
6568 BU/VT
1314 BU/WH
45 BU
2229 YE/BN
X50A Fuse Block - Underhood
KR50 Headlamp Relay
86 85 30 87
KR53 Park Lamps Relay
86 85 30 87
F3UA 20A
F34UA 15A
X1 A3
A5
H6
H3
X2
B+
B+ BUS
2227 YE
709 VT/GY
X110
6 7 2 5
E13LA Headlamp Assembly - Left
6568 BK
1314 BK
2227 BK
709 BK
K166L Multifunction LED Control Module - Left Headlamp
17 2 20 15 5 9 11 10
IGN
BK
E4LF Turn Signal Lamp - Left Front
Headlights/ Daytime Running Lights (DRL) Schematics
J112
E2LF Side Marker Lamp - Left Front
150 BK
J110
X110 1
150 BK
G110

Exterior Lights Schematics (Front Turn Signals and Side Marker Lamps - Right (GFD))

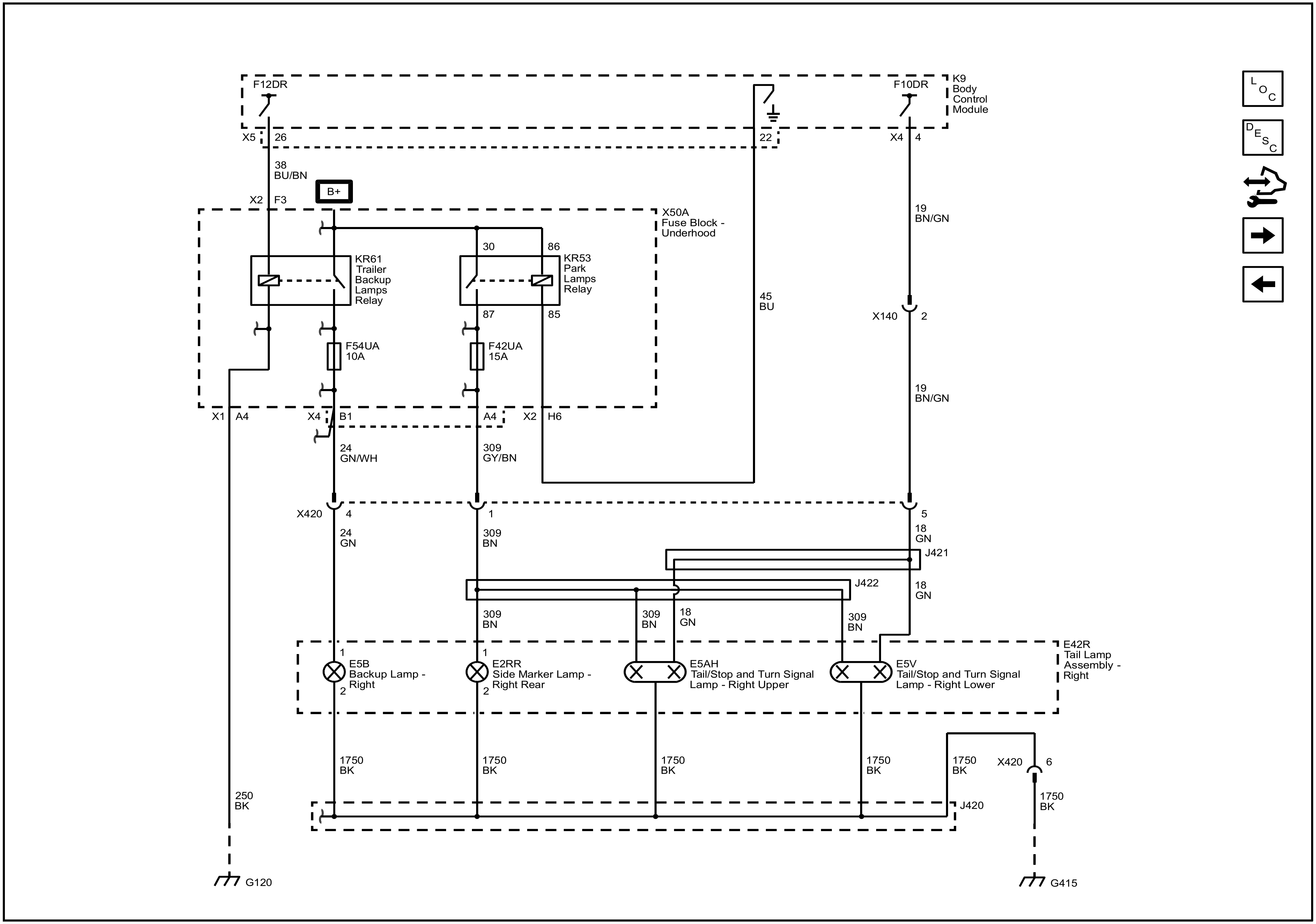

5255749
K9 Body Control Module
F31DR
X7
14
X4
3
22
21
X5
7545 WH/BU
1315 GN/VT
45 BU
2229 YE/BN
X50A Fuse Block - Underhood
KR50 Headlamp Relay
KR53 Park Lamps Relay
86
85
30
87
F4UA 20A
F42UA 15A
A3
X1
A6
H6
H5
X2
B+
B+ BUS
2226 YE/GY
309 GY/BN
6
7
2
5
X120
E13RA Headlamp Assembly - Right
K166R Multifunction LED Control Module - Right Headlamp
7545 BK
17
1315 BK
2
2226 BK
11
IGN
309 BK
E2RF Side Marker Lamp - Right Front
20
BK
Headlights/ Daytime Running Lights (DRL) Schematics
J122
E4RF Turn Signal Lamp - Right Front
15
BK
5
BK
9
BK
BK
10
250 BK
J120
250 BK
250 BK
1
250 BK
X120
G120

Exterior Lights Schematics (Tail Lamp Assembly - Left (GF3/GF5))


K9
Body
Control
Module
F12DR
F10DR
X5
26
22
1
38
BU/BN
B+
X2
F3
X50A
Fuse Block -
Underhood
18
YE/BU
KR61
Trailer
Backup
Lamps
Relay
30
86
KR53
Park
Lamps
Relay
87
85
45
BU
X140
12
F54UA
10A
F34UA
15A
18
YE/BU
X1
A4
X4
B1
A2
X2
H6
24
GN/WH
709
VT/GY
X410
4
1
5
24
GN
709
BN
18
GN
J411
J412
18
GN
709
BN
18
GN
709
BN
E42L
Tail Lamp
Assembly -
Left
1
E5A
Backup Lamp -
Left
2
1
E2LR
Side Marker Lamp -
Left Rear
2
E5AG
Tail/Stop and Turn
Signal Lamp - Left
Upper
E5U
Tail/Stop and Turn Signal
Lamp - Left Lower
1450
BK
1450
BK
1450
BK
1450
BK
1450
BK
X410
6
250
BK
J410
1450
BK
G120
G405

5255750

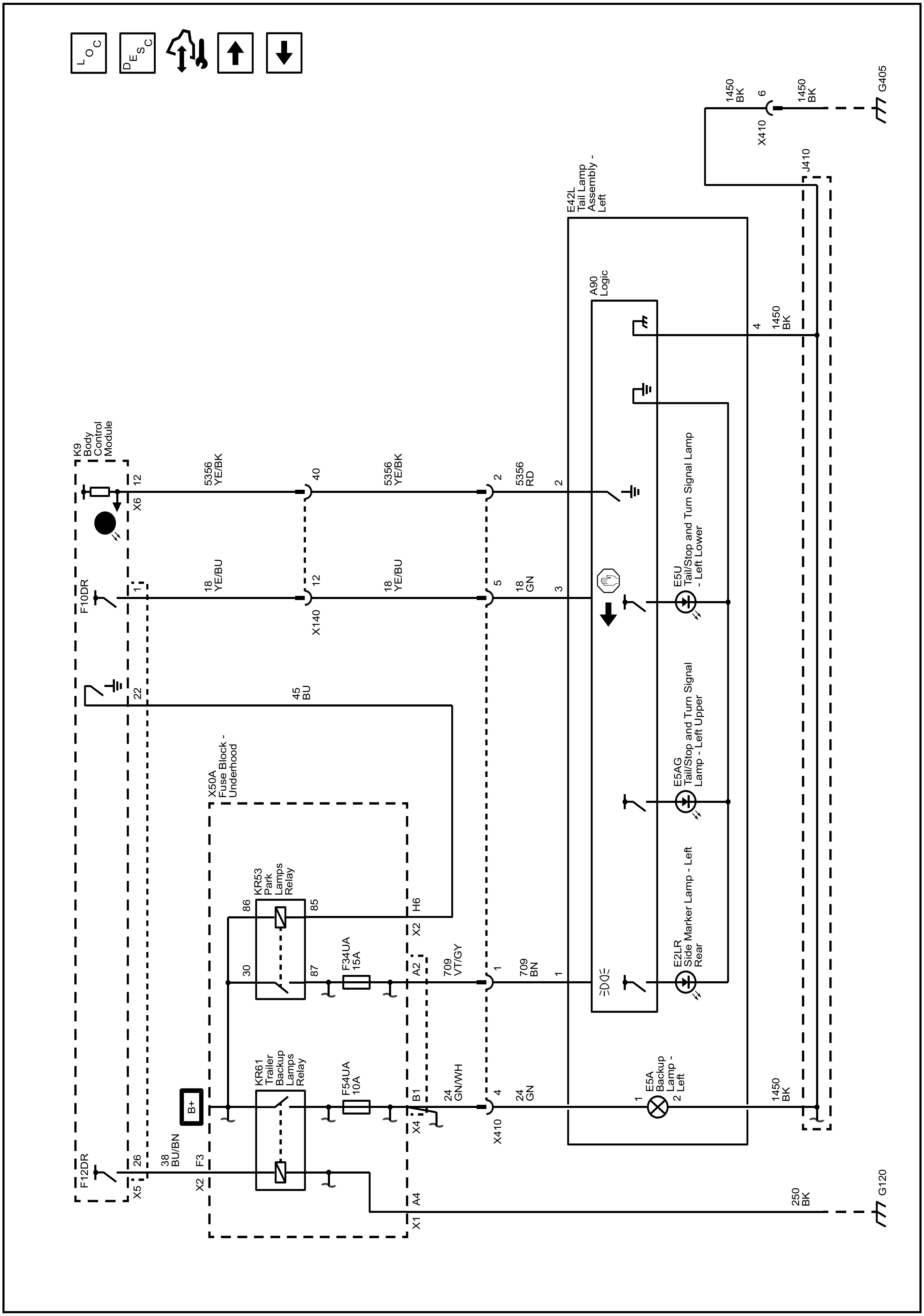
Exterior Lights Schematics (Tail Lamp Assembly - Right (GF3/GF5))



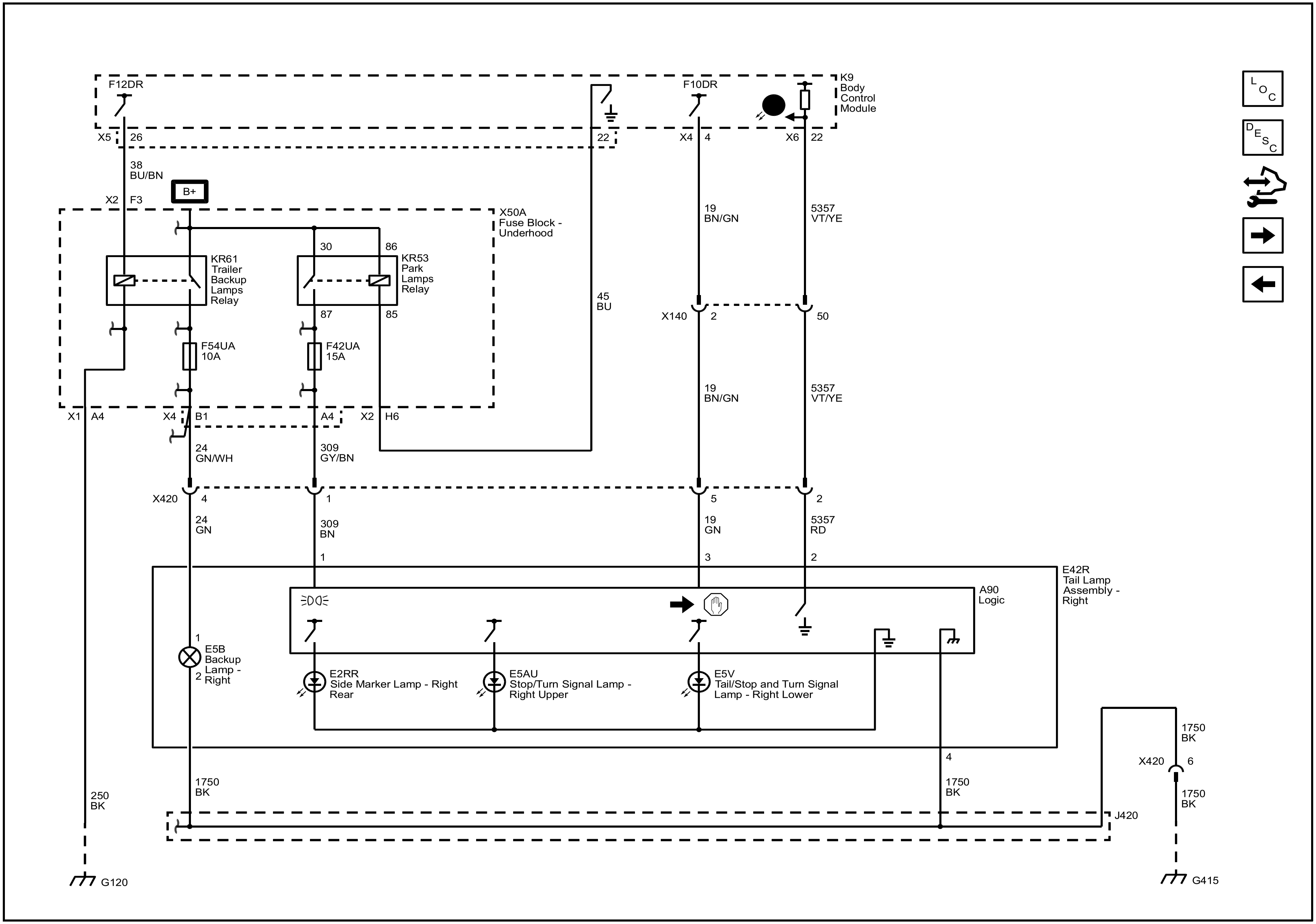
LOC
DESC
K9
Body
Control
Module
F12DR
F10DR
X5 26
22
X4 4
38
BU/BN
B+
X2 F3
X50A
Fuse Block -
Underhood
30
86
KR61
Trailer
Backup
Lamps
Relay
KR53
Park
Lamps
Relay
87
85
F54UA
10A
F42UA
15A
45
BU
19
BN/GN
X140 2
19
BN/GN
X1 A4
X4 B1
A4
X2 H6
24
GN/WH
309
GY/BN
X420 4
1
5
24
GN
309
BN
18
GN
J421
J422
18
GN
309
BN
309
BN
18
GN
309
BN
1
E5B
Backup Lamp -
Right
2
1
E2RR
Side Marker Lamp -
Right Rear
2
E5AH
Tail/Stop and Turn Signal
Lamp - Right Upper
E5V
Tail/Stop and Turn Signal
Lamp - Right Lower
E42R
Tail Lamp
Assembly -
Right
1750
BK
1750
BK
1750
BK
1750
BK
1750
BK
X420 6
1750
BK
250
BK
J420
G120
G415

5255751

Exterior Lights Schematics (Tail Lamp Assembly - Left (GF2/GF4/GF9/GFC/GFD/GPZ))

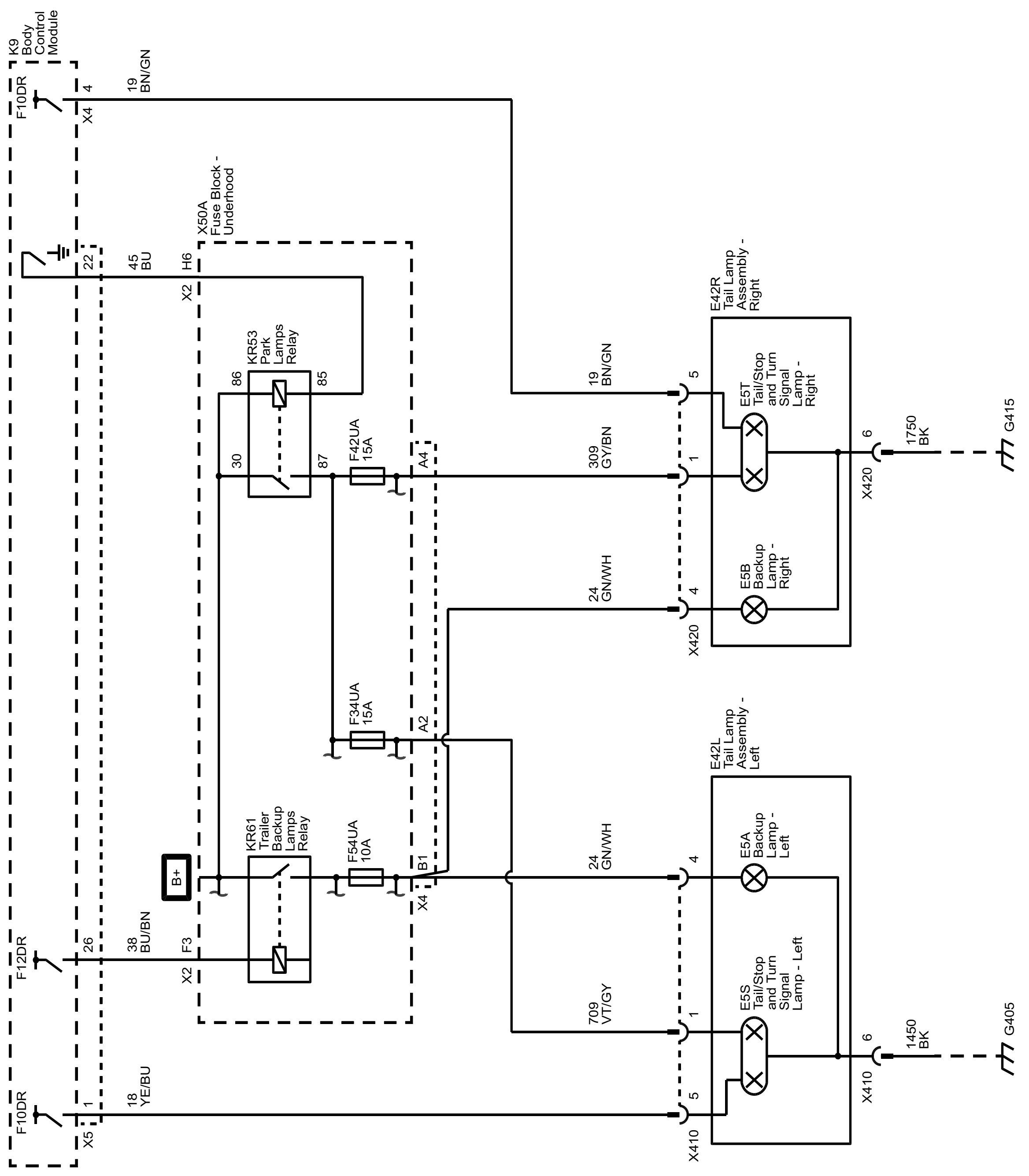

L O C
D E S C
B+
K9 Body Control Module
F12DR
X5 26
F10DR
1
22
X6 12
38 BU/BN
X2 F3
X50A Fuse Block - Underhood
KR61 Trailer Backup Lamps Relay
KR53 Park Lamps Relay
86
85
30
87
F54UA 10A
F34UA 15A
X4 B1
X2 A2
X2 H6
X1 A4
45 BU
5356 YE/BK
18 YE/BU
24 GN/WH
709 VT/GY
X140
40
12
X410
4
1
5
2
24 GN
709 BN
18 GN
5356 RD
E42L Tail Lamp Assembly - Left
A90 Logic
1
3
2
E5A Backup Lamp - 2 Left
1
E2LR Side Marker Lamp - Left Rear
E5AG Tail/Stop and Turn Signal Lamp - Left Upper
E5U Tail/Stop and Turn Signal Lamp - Left Lower
4
1450 BK
1450 BK
J410
X410
6
1450 BK
1450 BK
G405
250 BK
G120
5255753

Exterior Lights Schematics (Tail Lamp Assembly - Right (GF2/GF4/GF9/GFC/GFD/GPZ))

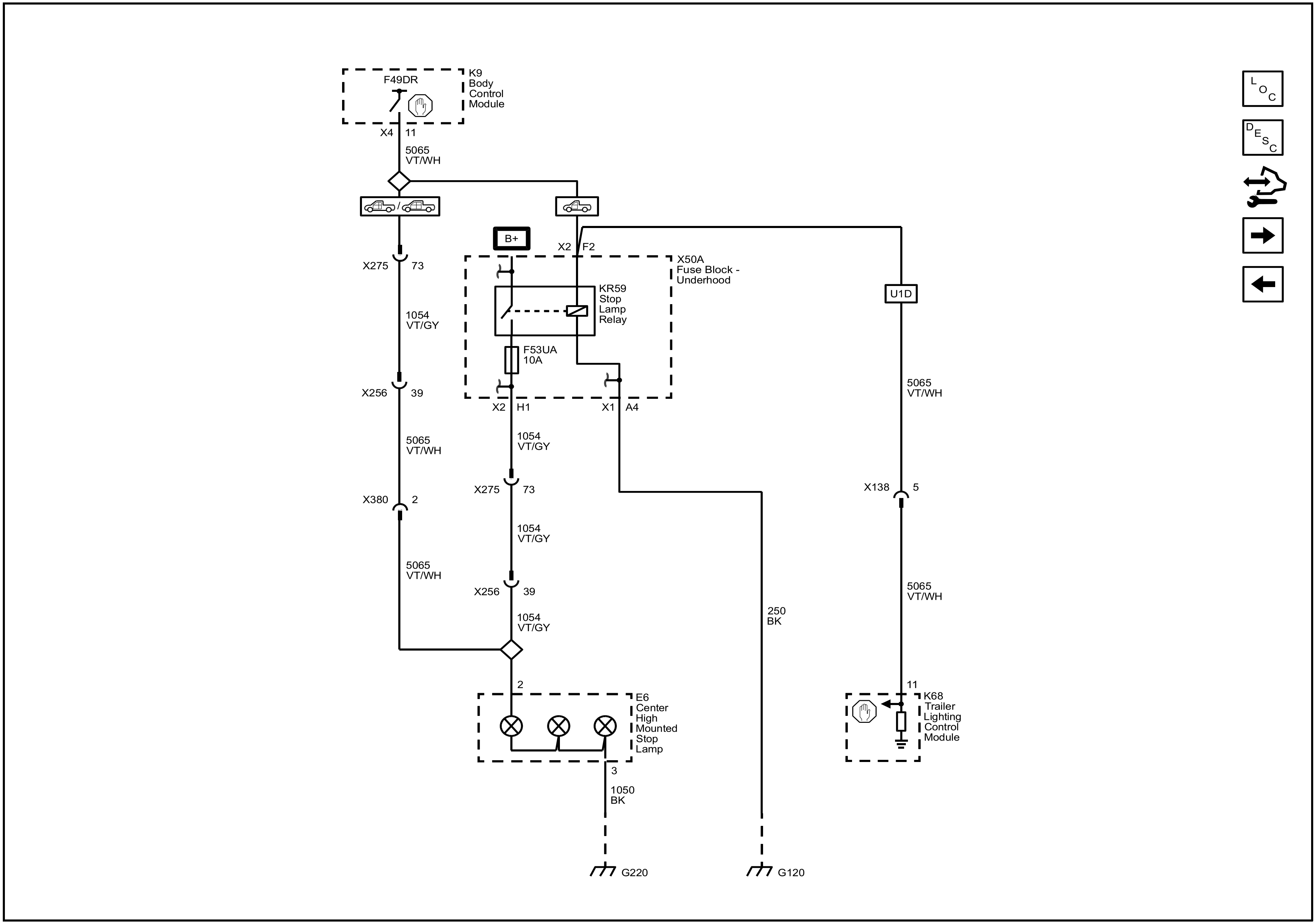

F12DR
F10DR
K9
Body
Control
Module
X5 26
22
X4 4
X6 22
38
BU/BN
B+
X2 F3
X50A
Fuse Block -
Underhood
19
BN/GN
5357
VT/YE
30
86
KR61
Trailer
Backup
Lamps
Relay
KR53
Park
Lamps
Relay
45
BU
87
85
X140 2
50
F54UA
10A
F42UA
15A
19
BN/GN
5357
VT/YE
X1 A4
X4 B1
A4
X2 H6
24
GN/WH
309
GY/BN
X420 4
1
5
2
24
GN
309
BN
19
GN
5357
RD
1
3
2
E42R
Tail Lamp
Assembly -
Right
A90
Logic
1
E5B
Backup
Lamp -
2 Right
E2RR
Side Marker Lamp - Right
Rear
E5AU
Stop/Turn Signal Lamp -
Right Upper
E5V
Tail/Stop and Turn Signal
Lamp - Right Lower
1750
BK
X420 6
1750
BK
4
250
BK
1750
BK
1750
BK
J420
G120
G415
5255754

Exterior Lights Schematics (Tail Lamp Assemblies (ZW9))

5255755

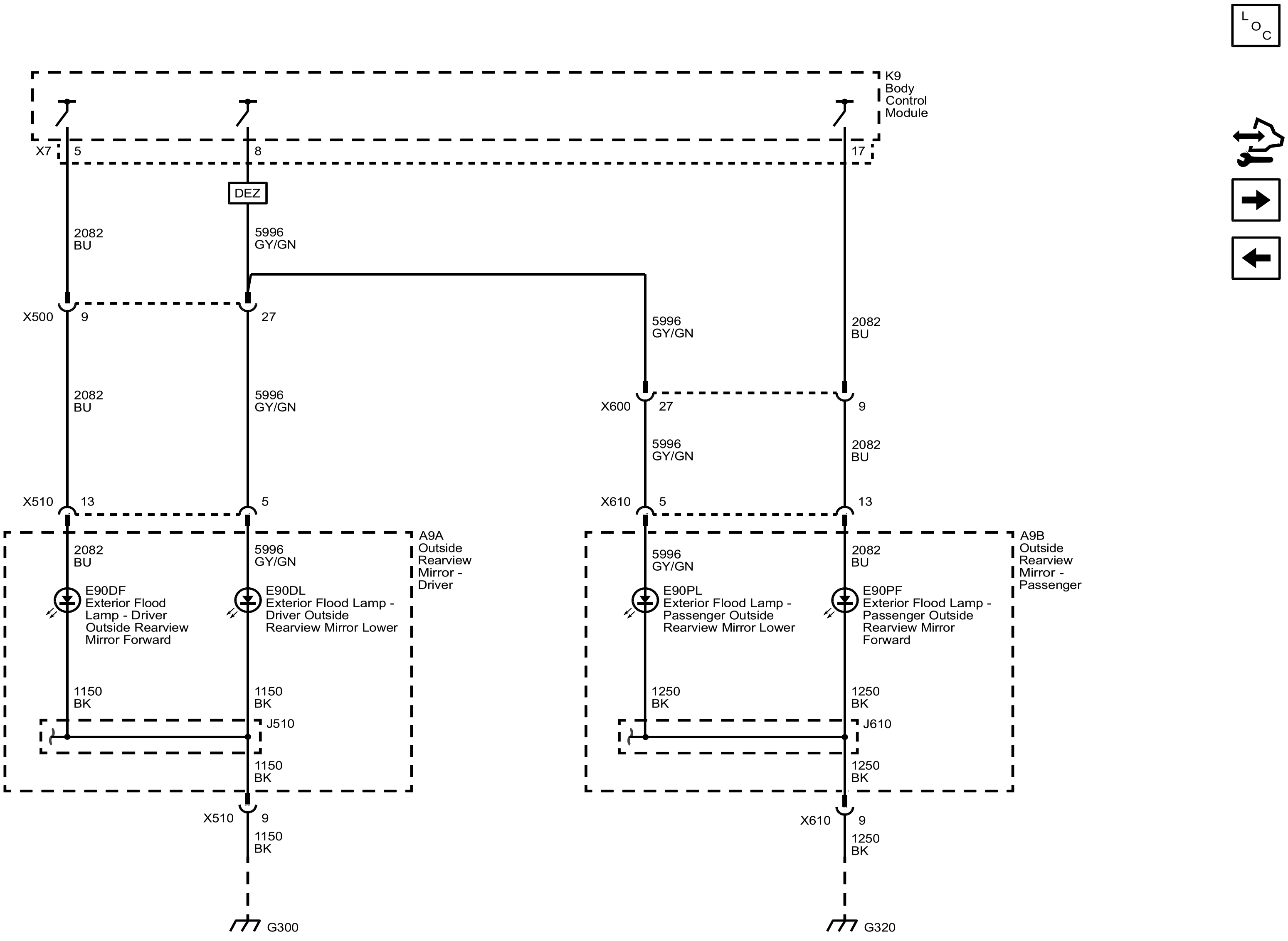

K9 Body Control Module
F10DR
X4 4
19 BN/GN
22
45 BU
X2 H6
X50A Fuse Block - Underhood
KR53 Park Lamps Relay
86
85
30
87
F42UA 15A
A4
309 GY/BN
F34UA 15A
A2
KR61 Trailer Backup Lamps Relay
B+
F54UA 10A
X4 B1
F12DR
26
38 BU/BN
X2 F3
24 GN/WH
709 VT/GY
F10DR
X5 1
18 YE/BU
E42R Tail Lamp Assembly - Right
5
1
4
X420
E5T Tail/Stop and Turn Signal Lamp - Right
E5B Backup Lamp - Right
6
X420
1750 BK
G415
E42L Tail Lamp Assembly - Left
E5A Backup Lamp - Left
E5S Tail/Stop and Turn Signal Lamp - Left
4
1
5
X410
6
X410
1450 BK
G405

Exterior Lights Schematics (Center High Mounted Stop Lamp)


K9
Body
Control
Module
F49DR
X4
11
5065
VT/WH
B+
X2
F2
X50A
Fuse Block -
Underhood
KR59
Stop
Lamp
Relay
F53UA
10A
X2
H1
X1
A4
X275
73
1054
VT/GY
X256
39
5065
VT/WH
X380
2
5065
VT/WH
1054
VT/GY
X275
73
1054
VT/GY
X256
39
1054
VT/GY
2
E6
Center
High
Mounted
Stop
Lamp
3
1050
BK
G220
250
BK
G120
U1D
5065
VT/WH
X138
5
5065
VT/WH
11
K68
Trailer
Lighting
Control
Module
LOC
DESC

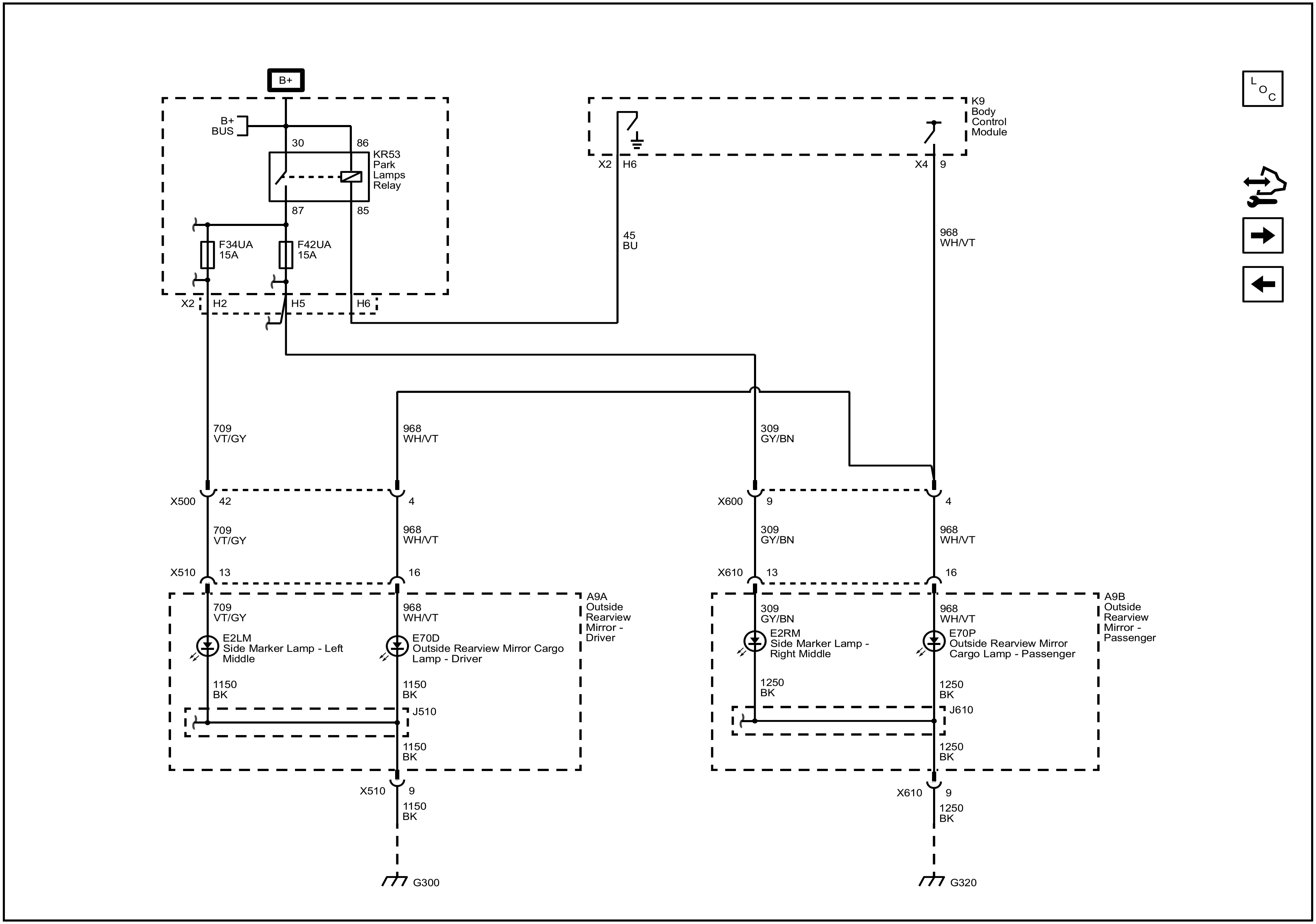
5255756

Exterior Lights Schematics (Mirrors (1 of 2) (DEZ/DLF))


LOC
K9
Body
Control
Module
X7
5
8
17
DEZ
2082
BU
5996
GY/GN
X500
9
27
X600
27
9
X510
13
5
X610
5
13
A9A
Outside
Rearview
Mirror -
Driver
A9B
Outside
Rearview
Mirror -
Passenger
E90DF
Exterior Flood
Lamp - Driver
Outside Rearview
Mirror Forward
E90DL
Exterior Flood Lamp -
Driver Outside
Rearview Mirror Lower
E90PL
Exterior Flood Lamp -
Passenger Outside
Rearview Mirror Lower
E90PF
Exterior Flood Lamp -
Passenger Outside
Rearview Mirror
Forward
1150
BK
1250
BK
J510
J610
X510
9
X610
9
G300
G320

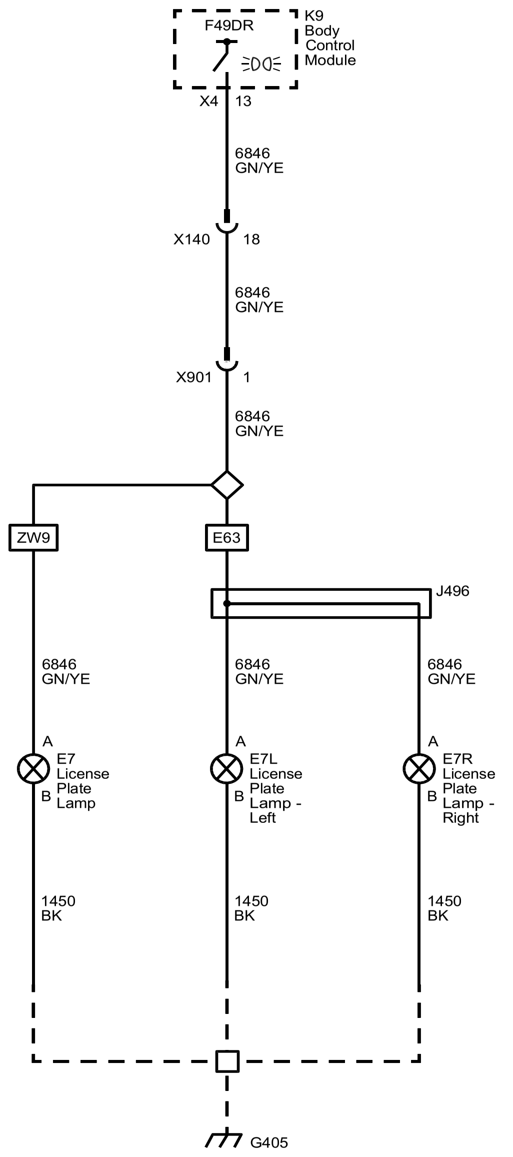
5255757

Exterior Lights Schematics (Mirrors (2 of 2) (DPO/DQS))


B+
B+
BUS
30
86
KR53
Park
Lamps
Relay
87
85
F34UA
15A
F42UA
15A
X2
H2
H5
H6
X2
H6
K9
Body
Control
Module
X4
9
45
BU
968
WH/VT
709
VT/GY
968
WH/VT
309
GY/BN
X500
42
4
709
VT/GY
968
WH/VT
X510
13
16
X600
9
4
309
GY/BN
968
WH/VT
X610
13
16
709
VT/GY
E2LM
Side Marker Lamp - Left Middle
968
WH/VT
E70D
Outside Rearview Mirror Cargo Lamp - Driver
A9A
Outside
Rearview
Mirror -
Driver
309
GY/BN
E2RM
Side Marker Lamp - Right Middle
968
WH/VT
E70P
Outside Rearview Mirror Cargo Lamp - Passenger
A9B
Outside
Rearview
Mirror -
Passenger
1150
BK
1150
BK
J510
1150
BK
1250
BK
1250
BK
J610
1250
BK
X510
9
1150
BK
X610
9
1250
BK
G300
G320

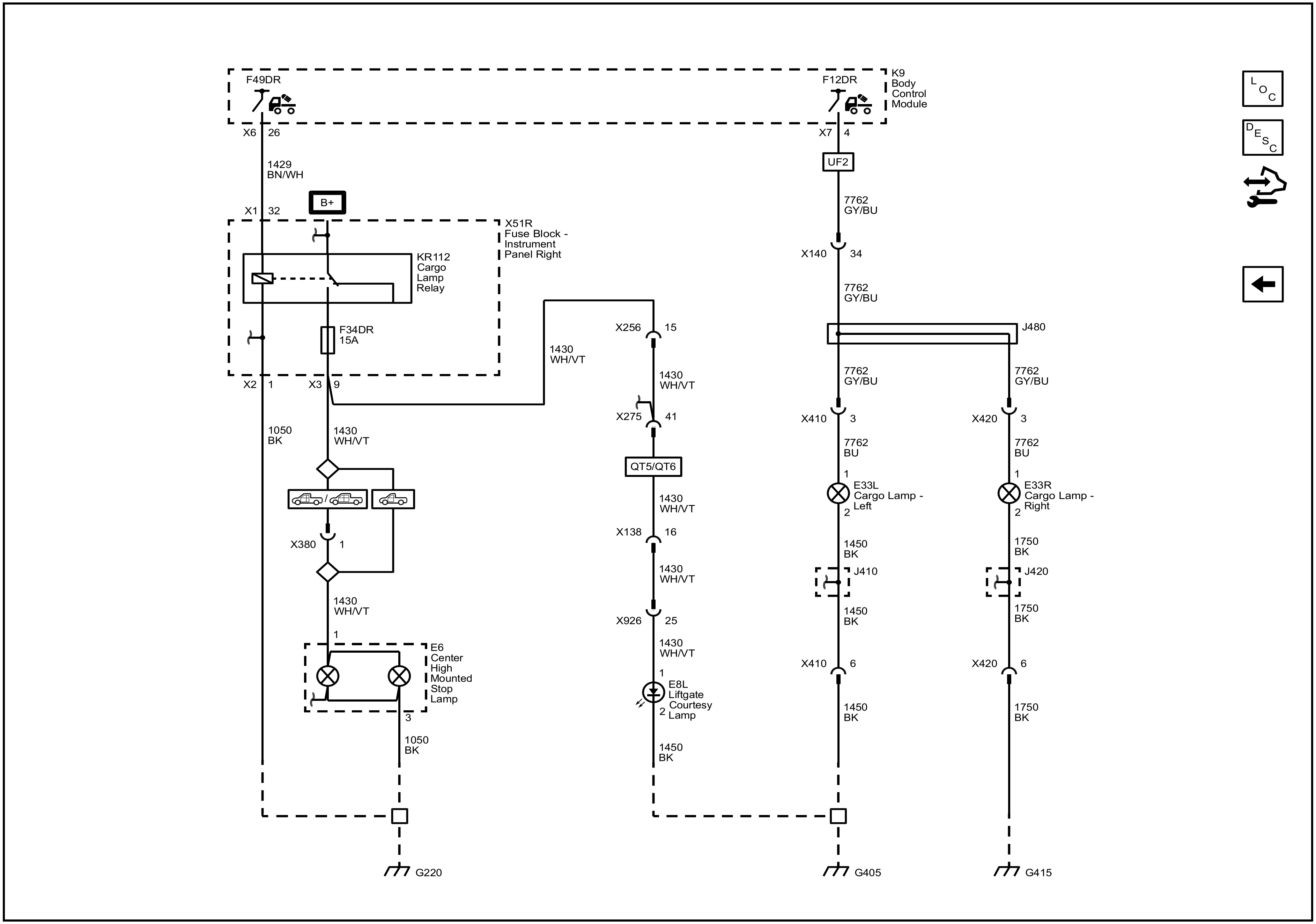
5299353

Exterior Lights Schematics (License Plate Lamps)


F49DR
K9
Body
Control
Module
X4
13
6846
GN/YE
X140
18
6846
GN/YE
X901
1
6846
GN/YE
ZW9
E63
J496
6846
GN/YE
6846
GN/YE
6846
GN/YE
A
E7
License
Plate
Lamp
B
A
E7L
License
Plate
Lamp -
Left
B
A
E7R
License
Plate
Lamp -
Right
B
1450
BK
1450
BK
1450
BK
G405

5255758

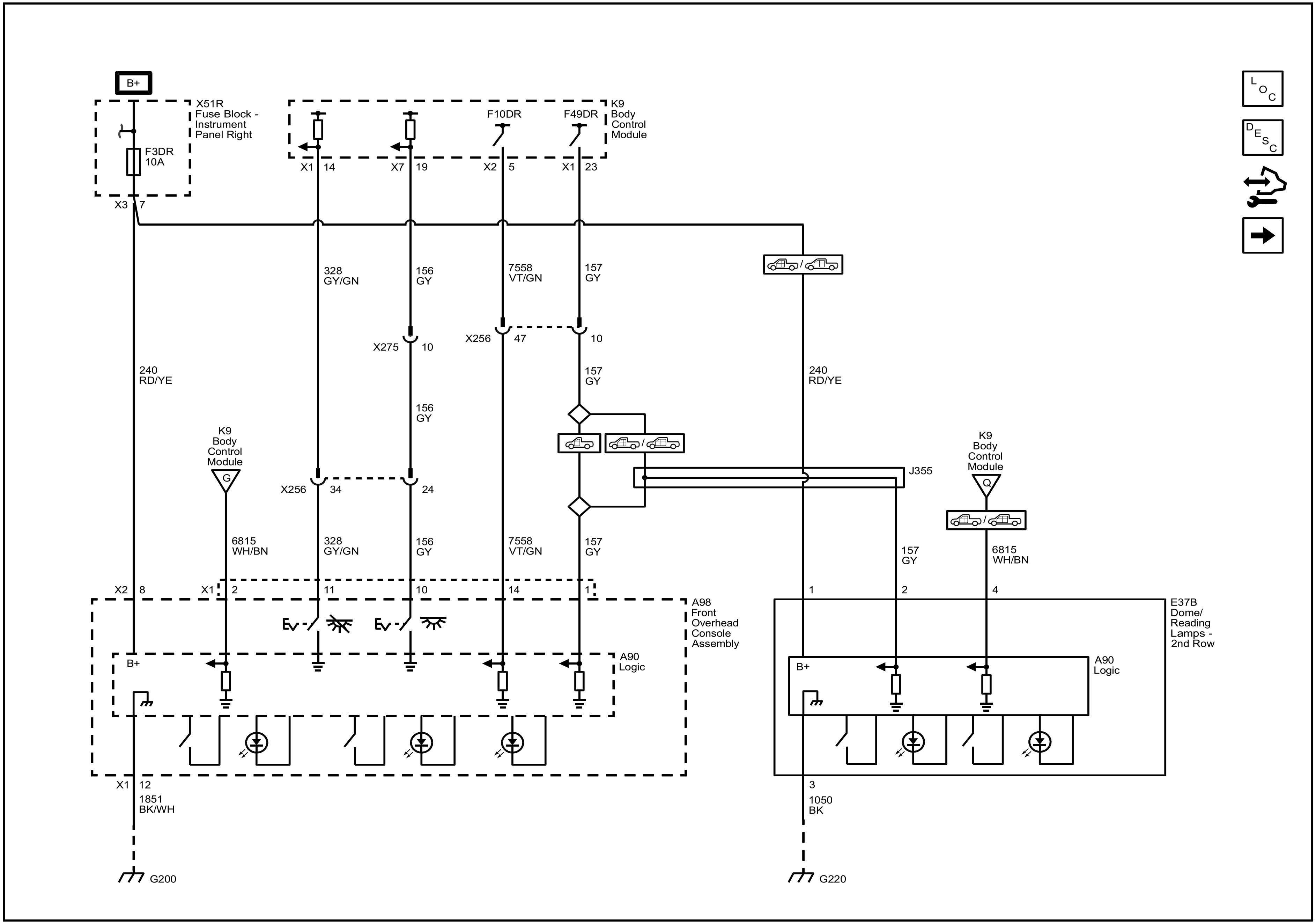
Exterior Lights Schematics (Cargo Lamps (UF2))



LOC
DESC
F49DR
F12DR
K9
Body
Control
Module
X6 26
X7 4
UF2
1429
BN/WH
7762
GY/BU
B+
X1 32
X51R
Fuse Block -
Instrument
Panel Right
X140 34
KR112
Cargo
Lamp
Relay
7762
GY/BU
J480
F34DR
15A
X256 15
1430
WH/VT
X2 1
X3 9
7762
GY/BU
7762
GY/BU
1430
WH/VT
X275 41
X410 3
X420 3
1050
BK
1430
WH/VT
7762
BU
7762
BU
QT5/QT6
1
E33L
Cargo Lamp -
Left
2
1
E33R
Cargo Lamp -
Right
2
1430
WH/VT
X380 1
X138 16
1450
BK
1750
BK
J410
J420
1430
WH/VT
1430
WH/VT
1450
BK
1750
BK
X926 25
1
1430
WH/VT
E6
Center
High
Mounted
Stop
Lamp
X410 6
X420 6
1
E8L
Liftgate
Courtesy
2 Lamp
3
1450
BK
1750
BK
1050
BK
1450
BK
G220
G405
G415

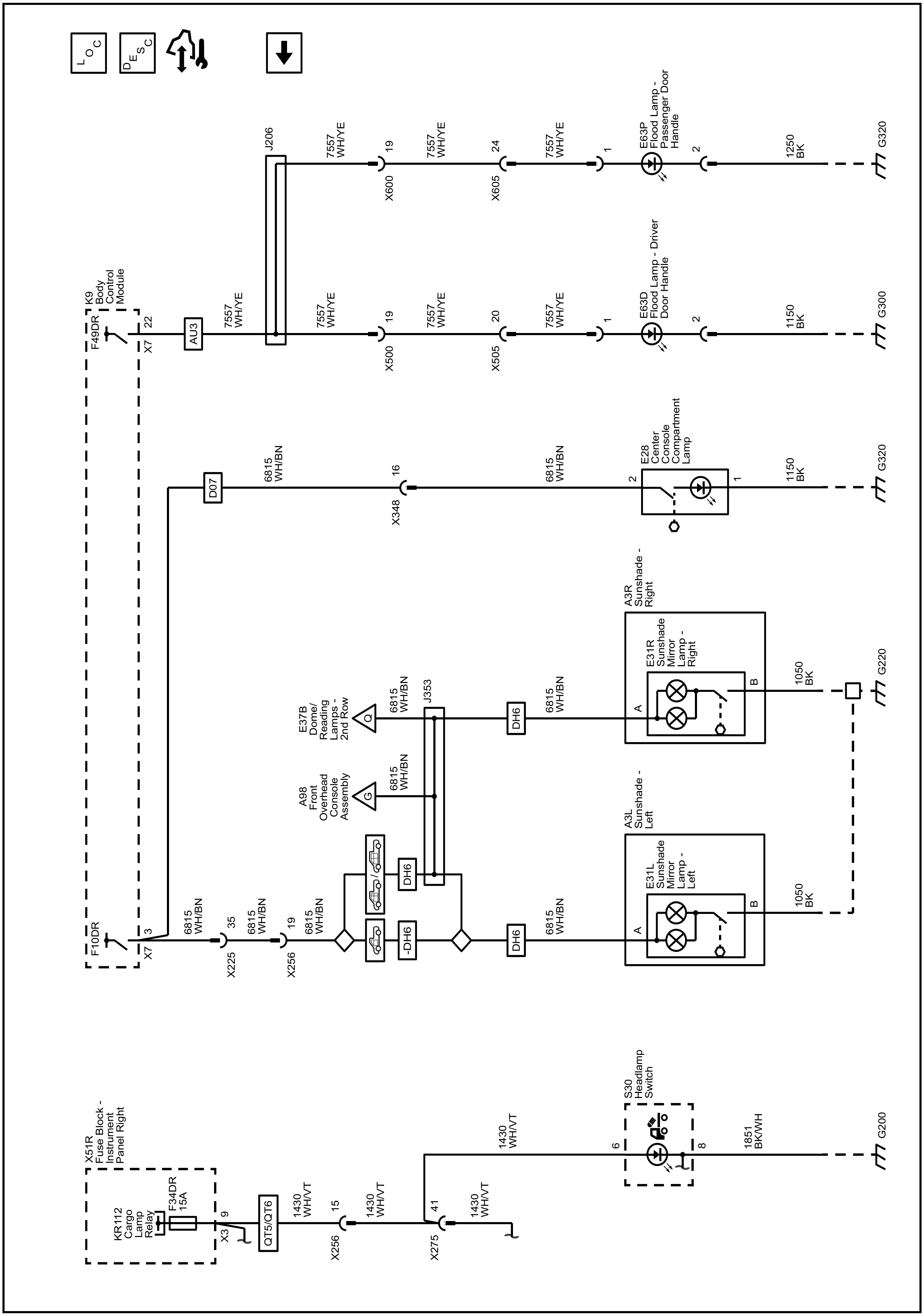
5255759

Interior Lights Schematics (Controls and Overhead Lamps)

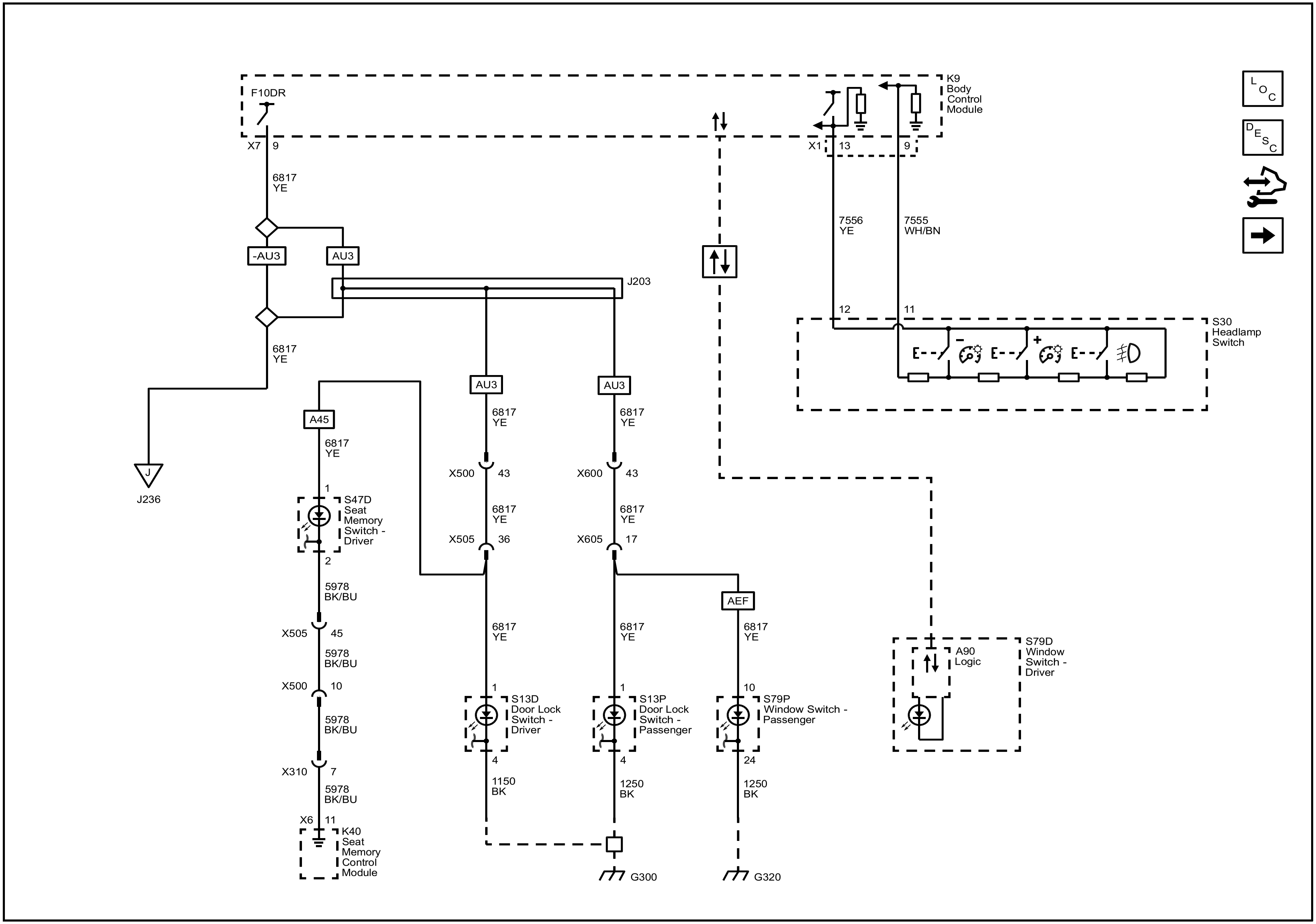

B+
X51R
Fuse Block - Instrument Panel Right
F3DR
10A
X3 7
K9
Body
Control
Module
X1 14
X7 19
F10DR
X2 5
F49DR
X1 23
328
GY/GN
156
GY
7558
VT/GN
157
GY
240
RD/YE
X275 10
X256 47
10
X256 34
24
K9
Body
Control
Module
G
J355
Q
6815
WH/BN
X2 8
X1 2
11
10
14
1
2
4
A98
Front
Overhead
Console
Assembly
A90
Logic
E37B
Dome/
Reading
Lamps -
2nd Row
X1 12
1851
BK/WH
3
1050
BK
G200
G220
L O C
D E S C

5255760

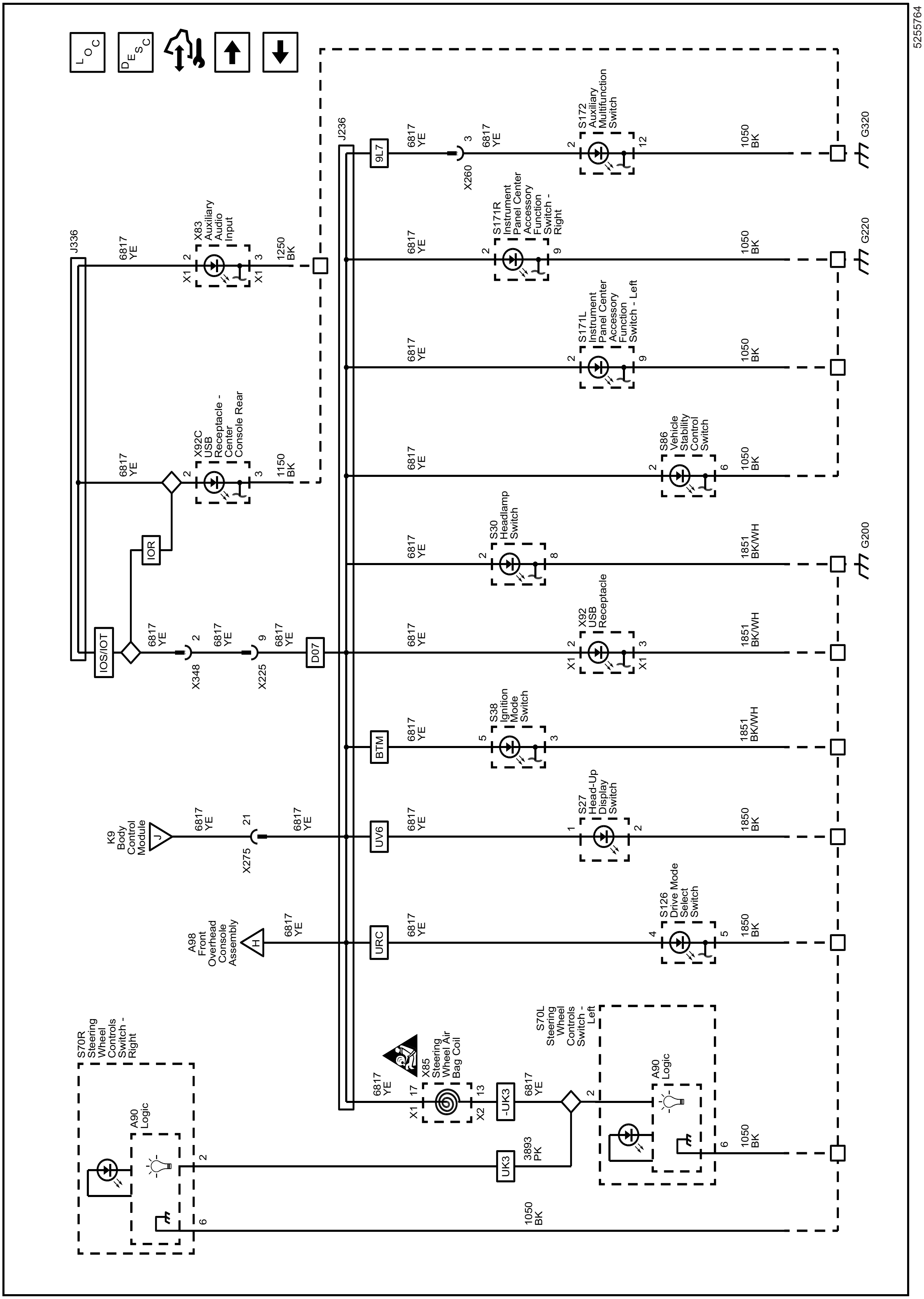
Interior Lights Schematics (Cargo Lamp Indicator, Sunshade, Center Console, and Door Lamps)


L O C
D E S C
5255761
X51R Fuse Block - Instrument Panel Right
KR112 Cargo Lamp Relay
F34DR 15A
X3 9
QT5/QT6
1430 WH/VT
X256 15
X275 41
S30 Headlamp Switch
6
8
1851 BK/WH
G200
K9 Body Control Module
F10DR
X7 3
F49DR
X7 22
AU3
6815 WH/BN
X225 35
X256 19
DH6
-DH6
J353
A98 Front Overhead Console Assembly
G
E37B Dome/ Reading Lamps - 2nd Row
Q
A3L Sunshade - Left
E31L Sunshade Mirror Lamp - Left
A3R Sunshade - Right
E31R Sunshade Mirror Lamp - Right
A
B
1050 BK
G220
D07
X348 16
E28 Center Console Compartment Lamp
2
1
1150 BK
G320
7557 WH/YE
J206
X500 19
X505 20
E63D Flood Lamp - Driver Door Handle
G300
X600 19
X605 24
E63P Flood Lamp - Passenger Door Handle
1250 BK

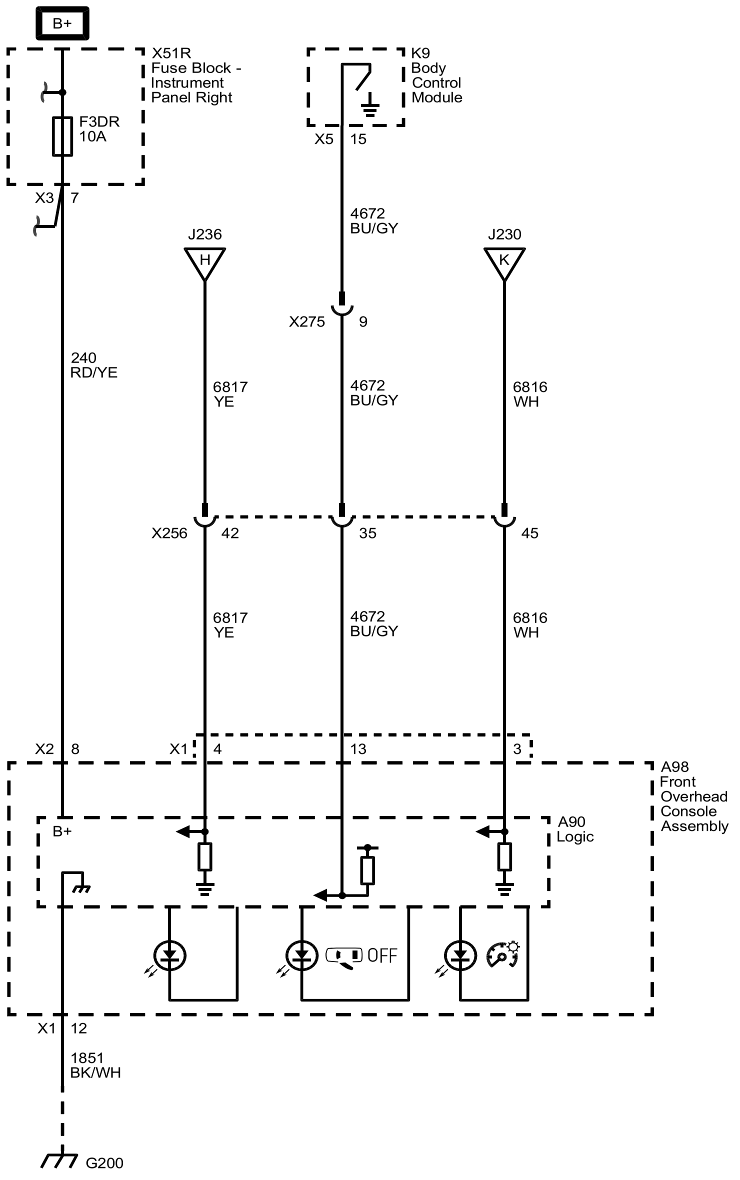
Interior Lights Dimming Schematics (Controls and Backlights (1 of 2))


F10DR
X7 9
6817
YE
-AU3
AU3
J203
6817
YE
J
J236
A45
6817
YE
1
S47D
Seat
Memory
Switch -
Driver
2
5978
BK/BU
X505 45
5978
BK/BU
X500 10
5978
BK/BU
X310 7
5978
BK/BU
X6 11
K40
Seat
Memory
Control
Module
AU3
6817
YE
X500 43
6817
YE
X505 36
6817
YE
1
S13D
Door Lock
Switch -
Driver
4
1150
BK
AU3
6817
YE
X600 43
6817
YE
X605 17
6817
YE
1
S13P
Door Lock
Switch -
Passenger
4
1250
BK
G300
AEF
6817
YE
10
S79P
Window Switch -
Passenger
24
1250
BK
G320
K9
Body
Control
Module
X1 13
9
7556
YE
7555
WH/BN
12
11
S30
Headlamp
Switch
A90
Logic
S79D
Window
Switch -
Driver
L O C
D E S C
5255762

Interior Lights Dimming Schematics (Backlights (2 of 2))

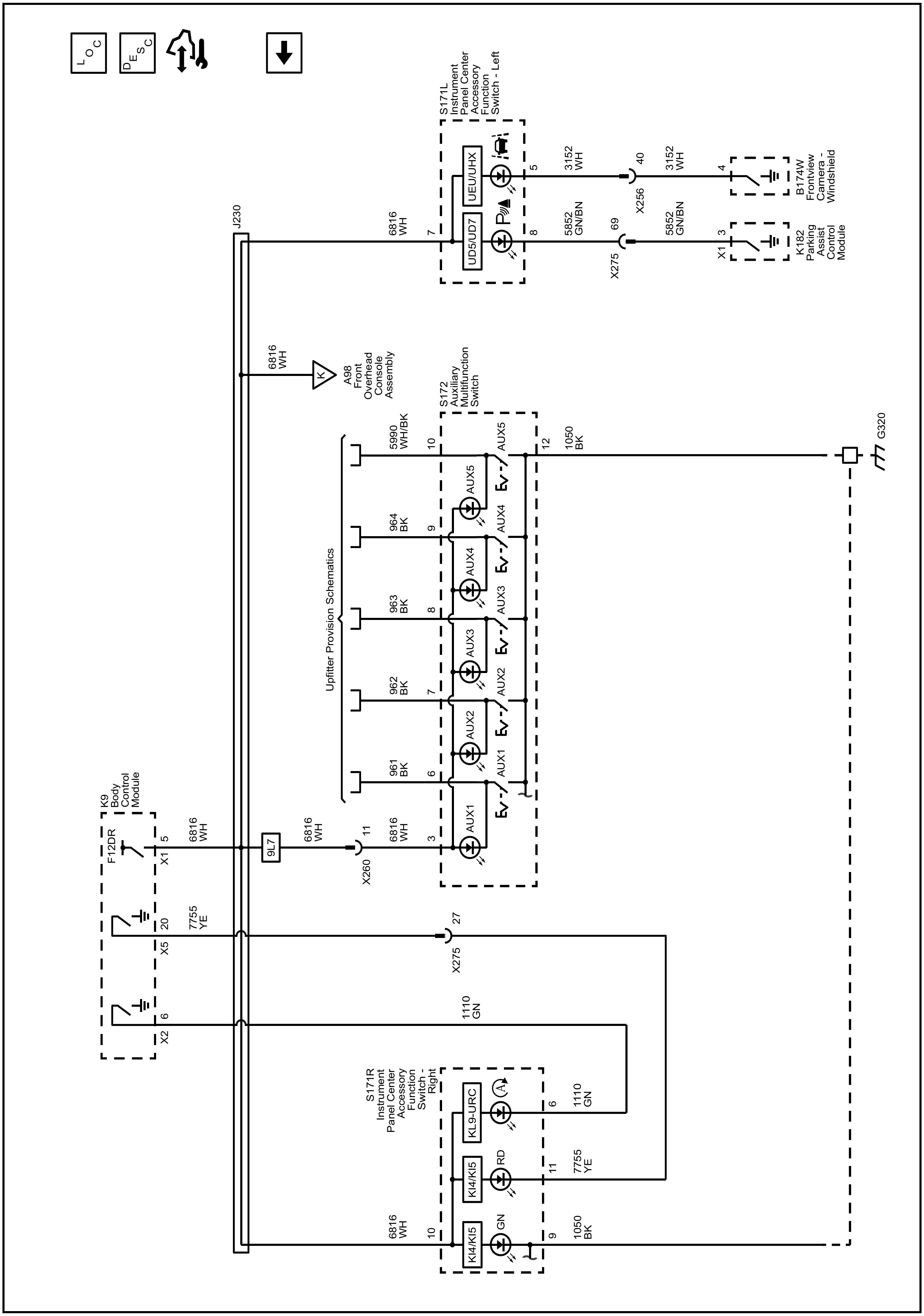

5255764
LOC
DESC
J336
J236
6817 YE
X83 Auxiliary Audio Input
X1 2
X1 3
1250 BK
X92C USB Receptacle - Center Console Rear
1150 BK
IOR
IOS/IOT
X348
X225
D07
K9 Body Control Module
J
X275
21
UV6
A98 Front Overhead Console Assembly
H
URC
9L7
X260
S172 Auxiliary Multifunction Switch
12
1050 BK
G320
S171R Instrument Panel Center Accessory Function Switch - Right
9
G220
S171L Instrument Panel Center Accessory Function Switch - Left
S86 Vehicle Stability Control Switch
6
S30 Headlamp Switch
8
1851 BK/WH
G200
X92 USB Receptacle
BTM
S38 Ignition Mode Switch
5
3
S27 Head-Up Display Switch
1
1850 BK
S126 Drive Mode Select Switch
4
S70R Steering Wheel Controls Switch - Right
A90 Logic
X85 Steering Wheel Air Bag Coil
X1 17
X2 13
-UK3
UK3
3893 PK
S70L Steering Wheel Controls Switch - Left
2
6
1050 BK

Interior Lights Dimming Schematics (Front Overhead Console Assembly)


B+
X51R
Fuse Block -
Instrument
Panel Right
F3DR
10A
X3 7
240
RD/YE
K9
Body
Control
Module
X5 15
4672
BU/GY
X275 9
4672
BU/GY
J236
H
6817
YE
J230
K
6816
WH
X256 42
35
45
6817
YE
4672
BU/GY
6816
WH
X2 8
X1 4
13
3
A98
Front
Overhead
Console
Assembly
A90
Logic
B+
OFF
X1 12
1851
BK/WH
G200

5255765

Interior Lights Dimming Schematics (Indicators)


5255766
LOC
DESC
K9 Body Control Module
F12DR
X1 5
6816 WH
X5 20
7755 YE
X2 6
1110 GN
9L7
X260 11
X275 27
J230
6816 WH
K
A98 Front Overhead Console Assembly
Upfitter Provision Schematics
S172 Auxiliary Multifunction Switch
961 BK
962 BK
963 BK
964 BK
5990 WH/BK
AUX1
AUX2
AUX3
AUX4
AUX5
12
1050 BK
G320
S171L Instrument Panel Center Accessory Function Switch - Left
UD5/UD7
UEU/UHX
5852 GN/BN
3152 WH
X275 69
X256 40
X1 3
K182 Parking Assist Control Module
4
B174W Frontview Camera - Windshield
S171R Instrument Panel Center Accessory Function Switch - Right
KI4/KI5
KL9-URC
GN
RD
A
10
11
9
1050 BK

Description and Operation

Exterior Lighting Systems Description and Operation

The exterior lighting system consist of the following lamps:

- Automatic high beam assist
- Backup lamps
- Daytime running lamps
- Front fog lamps
- Hazard warning lamps
- Headlamps
- Park, tail, license, and marker lamps
- Stop lamps
- Turn signal lamps
- Trailer lighting

Low Beam Headlamps

The headlamps may be turned ON in 3 different ways:

- When the headlamp switch is placed in the ON position, for normal operation
- When the headlamp switch is placed in the AUTO position, for automatic lamp control
- When the headlamp switch is placed in the AUTO position, with the windshield wipers ON in daylight conditions, after a 6 second delay

The BCM will also command the low beam headlamps ON during daylight conditions when the following conditions are met:

- Headlamp switch in the AUTO position
- Windshield wipers ON
- Vehicle in any gear but PARK

When the BCM commands the low beam headlamps ON, the vehicle operator will notice the interior backlighting for the instrument cluster and the various switches with backlighting control will dim to the level of brightness selected by the instrument panel dimmer switch.

The body control module (BCM) monitors three signal circuits from the headlamp switch. When the headlamp switch is in the AUTO position, all three signal circuits are open. When placed in the AUTO position, the BCM monitors inputs from the ambient light sensor to determine if headlamps are required or if daytime running lamps will be activated based on outside lighting conditions. When the headlamp switch is placed in the OFF position, the headlamp switch headlamps OFF signal circuit is grounded, indicating to the BCM that the exterior lamps should be turned OFF. With the headlamp switch in the PARK position, the headlamp switch park lamps ON signal circuit is grounded, indicating that the park lamps have been requested. When the headlamp switch is placed in the HEADLAMP position, both the headlamp switch park lamps ON signal circuit and the headlamp switch headlamps ON signal circuit are grounded. The BCM responds to the inputs by illuminating the park lamps and headlamps. When the low beam headlamps are requested, the BCM applies B+ to both low beam headlamp control circuits illuminating the low beam headlamps.

High Beam Headlamps

When the low beam headlamps are ON and the turn signal/multifunction switch is placed in the high beam position, ground is applied to the BCM through the high beam signal circuit. The BCM responds to the high beam request by applying ground to the high beam relay control circuit which energizes the high beam relay. With the high beam relay energized, the switch contacts close allowing battery voltage to flow through the high beam fuse to the high beam control circuits to there respective high beam solenoid actuators located within the headlamp assemblies. With the left and right high beam solenoid actuators active, the solenoid shutters open in each headlamp assembly exposing the remaining portion of the headlamp that was covered by the shutters illuminating the high beams at full intensity.

Automatic High Beam Assist (AHBA)

The automatic high beam assist (AHBA) system operates the high beam headlamps ON and OFF automatically when the system is activated and certain conditions are met. The AHBA system consists of a front camera module that detects light and is able to identify approaching vehicles on an even, straight road at a distance of greater than 0.4 km (0.25 mi). The front camera module analyzes light color, intensity, and movement. The AHBA system will turn OFF the high beam headlamps when approaching vehicle headlamps or preceding vehicle taillights are detected by the front camera module. AHBA can be deactivated when the headlamp dimmer switch is moved from the neutral position to the high beam or flash to pass positions. AHBA can be reactivated by operating the high beam select switch from the neutral position to the high beam position twice within 2 seconds.

AHBA System Activation

- Vehicle ON
- Headlamp switch placed in the AUTO position
- Headlamp dimmer switch must be in the neutral position
- Outside lighting conditions must be dark
- Vehicle speed greater than 25 mph (40 km/h)

AHBA System Operation

The following are conditions that the AHBA system will turn the high beam headlamps off during operation:

- The system detects approaching traffic headlamps
- The system detects preceding traffic tail lamps
- Ambient light level too high due to towns or twilight situations
- The vehicle’s speed drops below 13 mph (22 km/h)
- Delay

Note: AHBA may not operate properly if any of the following conditions exist:

- Approaching and preceding vehicles lamps are undetectable due to dirt, snow, road spray, smoke, fog, or any other airborne conditions.
- The front camera module is covered with ice, dirt, snow, haze, or is obstructed.
- The vehicle is being driven on winding or hilly road conditions which would make any on coming vehicle headlamps undetectable by the AHBA.

AHBA System Deactivation

- Manually operating the headlamp dimmer switch from neutral to high beam position
- AHBA is deactivated automatically when the front or rear fog lamps are turned ON

AHBA System Indicator

The status of the AHBA system is shown by a green indicator located on the instrument panel cluster. When AHBA is active, the indicator will be illuminated continuously. If the operator deactivates the AHBA system, the indicator will turn off.

Daytime Running Lamps

The daytime running lamps will illuminate continuously when the following conditions are met:

- The ignition is in the RUN or CRANK position
- The shift lever is out of the PARK position for vehicles equipped with automatic transmissions or the parking brake is released for vehicles with manual transmissions
- The low and high beam headlamps are OFF

The ambient light sensor is used to monitor outside lighting conditions. The ambient light sensor provides a voltage signal that will vary between 0.2 and 4.9 volts depending on outside lighting conditions. The body control module (BCM) provides a 5 V reference signal to the ambient light sensor and the HVAC control module provides a low reference ground. The BCM monitors the ambient light sensor signal circuit to determine if outside lighting conditions are correct for either daytime running lights or automatic lamp control when the headlamp switch is in the AUTO position. In daylight conditions the BCM applies B+ to both daytime running lamp control circuits to the left and right multifunction light emitting diode (LED) control modules located in each headlamp assembly. The multifunction LED control modules respond the to the B+ input from the BCM by illuminating the left and right daytime running lamp LED’s. Any function or condition that turns on the low beam headlamps will cancel daytime running lamps operation.

Flash to Pass

When the turn signal/multifunction switch is momentarily placed in the flash to pass position, ground is applied to the turn signal/multifunction switch. The turn signal/multifunction switch applies ground to the body control module (BCM) through the flash to pass switch signal circuit. The BCM responds to the flash to pass request by applying ground to the high beam relay control circuit. This energizes the high beam relay, closing the switch side contacts of the high beam relay, applying battery voltage to the 3 pin high beam fuse. Battery voltage is applied from the high beam fuse through the high beam control circuit to the high beam headlamp assemblies. This causes the high beam headlamps to illuminate at full brightness momentarily.

Front Fog Lamps

The front fog lamp relay is supplied with battery voltage at all times. The front fog lamp switch signal circuit is grounded momentarily by pressing the front fog lamp switch. The body control module (BCM) energizes the front fog lamp relay by applying ground to the front fog lamp relay control circuit. When the front fog lamp relay is energized, the relay switch contacts close and battery voltage is applied through the front fog lamp fuse to the front fog lamp supply voltage circuit which illuminates the front fog lamps.

Hazard Lamps

The hazard flashers may be activated in any power mode. The hazard switch signal circuit is momentarily grounded when the hazard switch is pressed. The body control module (BCM) responds to the hazard switch signal input by supplying battery voltage to all four turn signal lamps in an ON and OFF duty cycle. When the hazard switch is activated, the BCM sends a serial data message to the instrument panel cluster requesting both turn signal indicators to be cycled ON and OFF.

The instrument panel dimmer switch controls the brightness of the interior backlighting components. When the instrument panel dimmer switch is placed in a desired brightness position, the body control module (BCM) receives a signal from the instrument panel dimmer switch and responds by applying a pulse width modulated voltage to the hazard switch light emitting diode (LED) backlighting control circuit illuminating the LED to the desired level of brightness.

Park, Tail, and License Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the body control module (BCM). The BCM responds by applying voltage to the park lamps, tail lamps, and license lamps control circuits illuminating the park, tail, and license lamps.

Stop Lamps

The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM will apply battery voltage to the left and right stop lamp control circuits as well as the center high mounted stop lamp control circuit illuminating the left and right stop lamps and the center high mounted stop lamp.

Turn Signal Lamps

Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the body control module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating voltage to the front and rear turn signal lamps through there respective control circuits. When a turn signal request is received by the BCM, a serial data message is sent to the instrument cluster requesting the respective turn signal indicator be pulsed ON and OFF. Vehicles equipped with LED turn signals use an additional turn outage detection circuit for detecting when a LED turn signal goes out. This circuit is necessary due to the low current draw of LEDs. The turn outage detection circuit allows the module to alert the driver of the vehicle that a turn signal is out.

Backup Lamps

Automatic Transmission

With the engine ON and the transmission in the REVERSE position, the transmission control module (TCM) sends a serial data message to the body control module (BCM). The message indicates that the gear selector is in the REVERSE position. The BCM applies battery voltage to the backup lamps control circuit illuminating the backup lamps. Once the driver moves the gear selector out of the REVERSE position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamps control circuit. The engine must be ON for the backup lamps to operate.

Manual Transmission

The engine control module (ECM) provides a signal circuit to the backup lamp switch which is permanently grounded. With the engine running and the transmission in the reverse position, the backup lamp switch signal circuit is pulled low and the ECM responds by sending a serial data message to the body control module (BCM). The message indicates that the gear selector is in the reverse position. The BCM energizes the backup lamp relay by applying battery voltage to the backup lamp relay control circuit. When the backup lamp relay is energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuses to the backup lamp control circuits which illuminates the backup lamps. Once the driver moves the gear selector out of the reverse position, a message is sent by the ECM via serial data requesting the BCM to remove battery voltage from the backup lamp relay control circuit. The engine must be running for the backup lamps to operate.

Exterior Courtesy Lighting

Cargo Lamps

The cargo lamps are controlled by a cargo lamp relay and a dedicated cargo lamp control circuit from the body control module (BCM). The cargo lamp relay is supplied with ground at all times. The cargo lamp switch signal circuit is grounded momentarily by pressing the cargo lamp switch located within the headlamp switch. The body control module (BCM) responds by energizing the cargo lamp relay by applying battery voltage to the cargo lamp relay control circuit as well as the dedicated cargo lamp control circuit. When the cargo lamp relay is energized, the relay switch contacts close and battery voltage is applied through the cargo lamp fuse to the cargo lamp supply voltage circuit which illuminates the cargo lamps. Cargo lamps are located in the center high mounted stop lamp assembly, truck bed, and tailgate handle when equipped.

Forward Flood Lamps

The flood lamp switch signal circuit is grounded momentarily by pressing the flood lamp switch located within the headlamp switch. The body control module (BCM) responds by applying battery voltage to the exterior flood lamp control circuits which illuminates the forward exterior flood lamps located within the exterior mirror assemblies. If the exterior flood lamps are left on with the vehicle off, the lights will shut off after approximately 10 minutes to prevent total battery discharge. The exterior flood lamps will immediately turn off if the vehicle leaves the parked position.

Lower Flood Lamps

The body control module (BCM) supplies battery voltage to the exterior LED lighting located under each outside rearview mirror for approach lighting. When the keyless entry transmitter is operated to either the lock or unlock functions the LED lighting located under each outside rearview mirror are commanded ON for approach lighting.

Trailer Lighting (With U1D)

The trailer lighting control module is supplied with battery voltage as well as ignition voltage and is permanently grounded. For lighting operation, the trailer lighting control module receives serial data messages from the body control module (BCM) indicating what lamps have been activated on the vehicle. The trailer lighting control module responds by applying voltage to the appropriate control circuits for the requested lamps illuminating the lamps on the attached trailer. The trailer lighting control module constantly monitors for trailer connection status, trailer lighting faults, and trailer theft deterrent purposes, this is accomplished through the lighting circuits of the trailer to determine if a trailer is connected. With the key OFF, the trailer lighting control module will periodically pulse the lighting circuits of the trailer to verify it is still connected. The lights on the trailer may flash at different intervals with the key OFF depending on which type of lights the trailer is built with. If a trailer is disconnected with the key ON, the vehicle will display a trailer disconnected message until a trailer is reconnected or the ignition is cycled.

Backup Lamps

With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message that indicates the gear selector is in the reverse position. The Trailer Lighting Control Module responds by applying voltage to the X88 Trailer Connector on the Trailer Backup Lamps control circuit when a trailer is connected. Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the Trailer Lighting Control Module to remove battery voltage from the backup lamp control circuit.

Park Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the body control module (BCM). The BCM responds by sending a serial data message to the Trailer Lighting Control Module. The Trailer Lighting Control Module responds by applying voltage to the X88 Trailer Connector on the Trailer Park Lamp control circuit when a trailer is connected.

Stop Lamps

The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM energizes the stop lamp relay circuit by applying voltage to the stop lamp relay control circuit. The Trailer Lighting Control Module senses the voltage on the stop lamp relay circuit and responds by applying voltage to the X88 Trailer Connector on the left and right Trailer Stop/Turn Signal Lamp control circuits when a trailer is connected.

Turn Signal Lamps

Ground is applied at all times to the turn signal/ multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the body control module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds by sending a serial data message to the Trailer Lighting Control Module. The Trailer Lighting Control Module responds by applying voltage to the X88 Trailer Connector on either the left or right Trailer Stop/Turn Signal Lamp control circuits when a trailer is connected.

Trailer Lighting (Without U1D)

Backup Lamps

For backup lamp operation, the backup lamp relay is supplied with battery voltage at all times. With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the body control module (BCM). The message indicates that the gear selector is in the reverse position. The BCM energizes the backup lamp relay by applying battery voltage to the backup lamp relay control circuit. When the backup lamp relay is energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuses to the backup lamp control circuits which illuminates the backup lamps. Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamp relay control circuit.

Park Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the body control module (BCM). The BCM responds by applying voltage to the park lamps, tail lamps, license lamps, and trailer park lamps control circuits illuminating the park, tail, license, and trailer park lamps.

Stop Lamps

For stop lamp operation, the left and right trailer stop/ turn signal lamp relay’s are supplied with battery voltage at all times. The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM energizes the left and right trailer stop/turn signal lamp relay’s by applying voltage to the left and right stop lamp relay control circuits. With the left and right trailer stop/turn signal lamp relay’s energized, the relay switch contacts close and battery voltage is applied through the left and right trailer stop/turn signal fuse’s to the trailer stop lamp control circuits which illuminates the trailer stop lamps.

Turn Signal Lamps

For turn signal lamp operation, the left and right trailer stop/turn signal lamp relay’s are supplied with battery voltage at all times. Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the TURN RIGHT or TURN LEFT position, ground is applied to the body control module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating voltage to the left and right trailer stop/turn signal lamp relay control circuits energizing the relay’s in an ON and OFF cycle. With the left and right trailer stop/turn signal lamp relay’s energized, the relay switch contacts cycle ON and OFF applying battery voltage through the left and right trailer stop/turn signal fuse’s to the trailer turn signal lamp control circuits which illuminates the trailer turn signal lamps in an ON and OFF cycle.

Battery Run Down Protection/ Inadvertent Power

To provide battery run down protection, the exterior lamps will be deactivated automatically under certain conditions. The BCM monitors the state of the headlamp switch. If the park or headlamp switch is ON when the ignition switch is placed in either the CRANK or RUN position and then placed in the OFF position, the BCM initiates a 10 minute timer. At the end of the 10 minutes, the BCM will turn off the control power output to the park lamp controls as well as the headlamp relay coils, deactivating the exterior lamps. This feature will be cancelled if any power mode other than OFF becomes active. The BCM will disable battery run down protection if any of the following conditions exist. The park or headlamp switch is placed in the ON to OFF position, and back to the ON position during battery run down protection. The BCM determined that the park or headlamp switch was not active when the ignition was turned OFF.

Interior Lighting Systems Description and Operation

Interior Lamps

The interior lighting system consist of two groups. This first group includes lamps that may not be dimmed.

- Dome lamps
- Center console compartment lamps
- Reading lamps
- Sunshade mirror lamps

Dome Lamps

The dome lamp switch has 3 positions: DOOR, OFF, and ON. The ON position provides a ground for continuous operation and the dome lamp will remain illuminated until the switch is placed in either the DOOR or OFF position. When in the DOOR position, the dome lamp operation is controlled by the body control module (BCM). When any door is opened, the door ajar switch contacts close and the BCM receives a door-open input. The BCM illuminates the dome lamp when any door is opened or a door lock/unlock request is activated with the key fob. After all doors have been closed, the dome lamp will remain illuminated approximately 3 seconds after the last door closes. When the driver places the dome lamp switch in the OFF position, the dome lamp will be disabled. In the event that the dome lamp were to remain illuminated for more than 10 minutes with the ignition switch in the OFF position and no doors opened, the BCM will deactivate the dome lamp control circuit to prevent total battery discharge. The dome lamps will turn OFF using the theater dimming feature when controlled by the BCM.

Center Console Compartment Lamp

The inadvertent power supply voltage circuit from the BCM provides battery voltage to the center console compartment lamp. When the center console is opened, the center console compartment lamp switch contacts close providing a path to ground and the center console compartment lamp illuminates. If the operator inadvertently leaves the center console compartment door open with the center console compartment lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

Reading Lamps

The inadvertent power supply voltage circuit from the BCM provides battery positive voltage to each reading lamp. When a reading lamp switch is activated, the switch contacts close providing a path to ground and the reading lamp illuminates. If the operator inadvertently leaves a reading lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

Sunshade Mirror Lamps

The inadvertent power supply voltage circuit from the BCM provides battery voltage to each set of sunshade mirror lamps. When the sunshade mirror cover is opened, a switch closes providing ground and the sunshade lamps illuminate. If the operator inadvertently leaves a sunshade mirror cover open with the lamps ON, the BCM will turn all interior lamps OFF after 10 minutes has passed since any switch activation has been detected by the BCM.

Keyless Entry Interior Illumination

When the operator uses the keyless entry transmitter in order to unlock the doors, the BCM receives a door-unlock signal. The BCM must receive inputs from various systems that indicate that the ignition switch is OFF, the courtesy lamp switch is OFF, and all doors are closed before the BCM will activate the interior lamps. After all doors have been closed, the courtesy lamps will turn OFF immediately if the ignition switch is turned to the ON position, the door locks are LOCKED, or approximately 20 seconds after the last door closes. The BCM will turn off the courtesy lamps through the theater dimming feature. The BCM keeps the courtesy lamps on for 40 seconds after an alarm event is completed.

Interior Lamps Dimming

The second group includes lamps which may be dimmed. This group may use a combination of light emitting diodes (LED), incandescent lamps, and pulse width modulation (PWM) illumination.

- Dome/reading lamps – front
- Dome/reading lamps – rear
- Door lock switch – driver
- Door lock switch – passenger
- Garage door opener switch
- Headlamp switch
- HVAC control head assembly
- Multifunction switch – instrument panel
- Outside rearview mirror switch
- Park brake switch
- Radio
- Roof beacon switch
- Seat memory switch – driver
- Sliding rear window switch
- Steering wheel control switch – left
- Steering wheel control switch – right
- Sun roof switch
- Sun roof tilt switch
- Transfer case shift control switch
- Trailer brake control switch
- Window switch – driver
- Window switch – passenger

With the headlamp switch in the PARK or HEAD position, the park lamp switch signal circuit provides an input to the body control module (BCM). The BCM responds by applying voltage to the park lamps as well as the backlight dimming control circuits illuminating all components with interior backlighting. All interior backlighting turns ON at the dimming level indicated by the instrument panel dimmer switch. The instrument panel dimmer switch is a momentary type switch and utilizes a resistor ladder to increase and decrease the brightness of the interior backlighting components. The instrument panel dimmer switch provides a voltage signal to the BCM that will increase as the brightness of the lights are increased and decrease as the brightness of the lights are decreased. The BCM provides a low reference signal and a B+ circuit to the instrument panel dimmer switch. When the instrument panel dimmer switch is held in the desired position, the dimmed voltage setting is applied from the instrument panel dimmer switch through the instrument panel dimmer switch signal circuit to the BCM. The BCM interprets the signal and applies a pulse width modulated voltage through the backlighting control circuits illuminating the interior backlighting to the requested level of brightness.

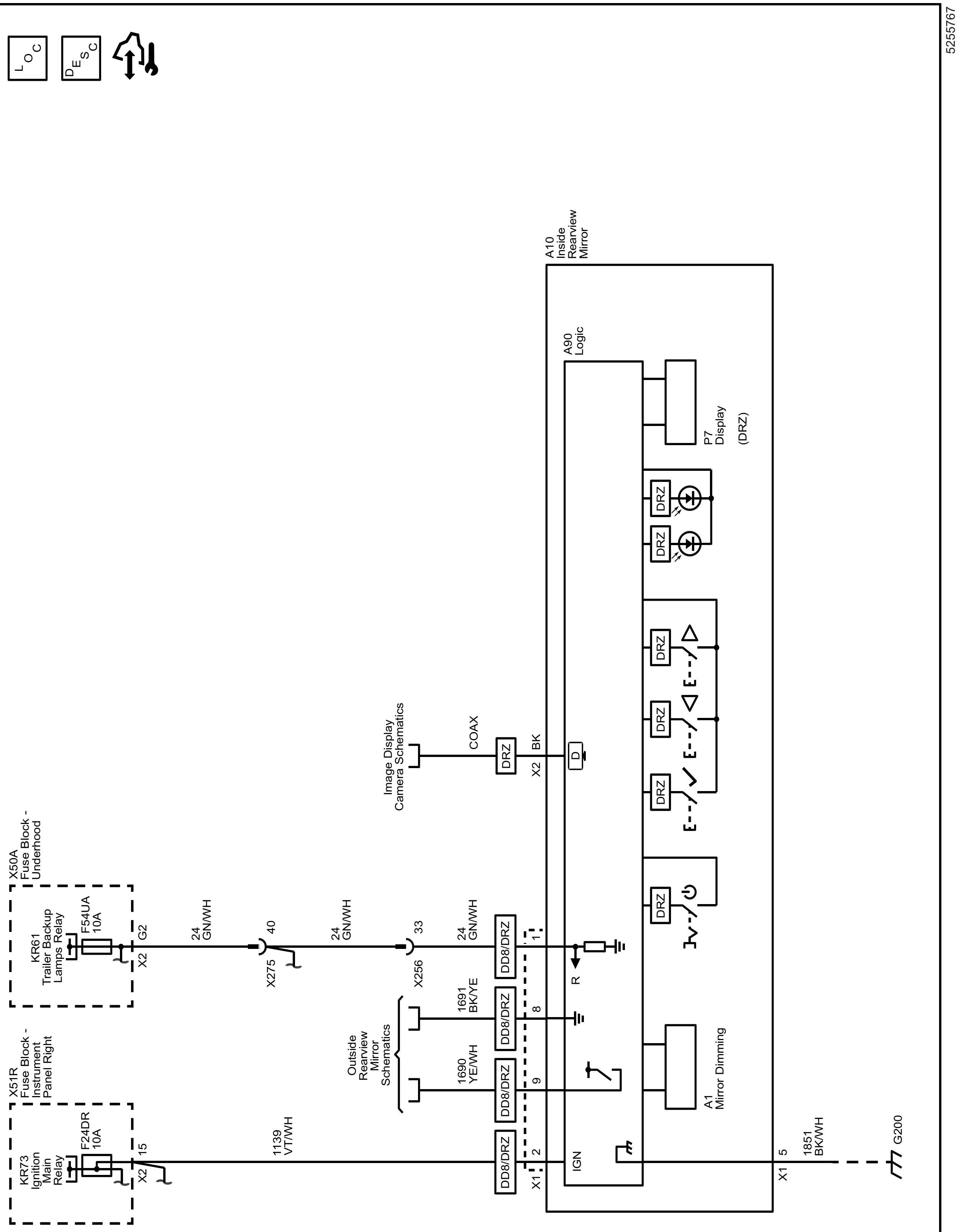
Battery Rundown Protection/ Inadvertent Power

The BCM inadvertent power supply voltage circuit provides battery voltage to all of the interior courtesy lamps. In the event that any of these lamps were to remain illuminated for a period of more than 10 minutes with the ignition switch in the OFF position, the BCM will deactivate the inadvertent power supply voltage circuit to prevent total battery discharge. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this 10 minute period, the timer resets for another 10 minutes.

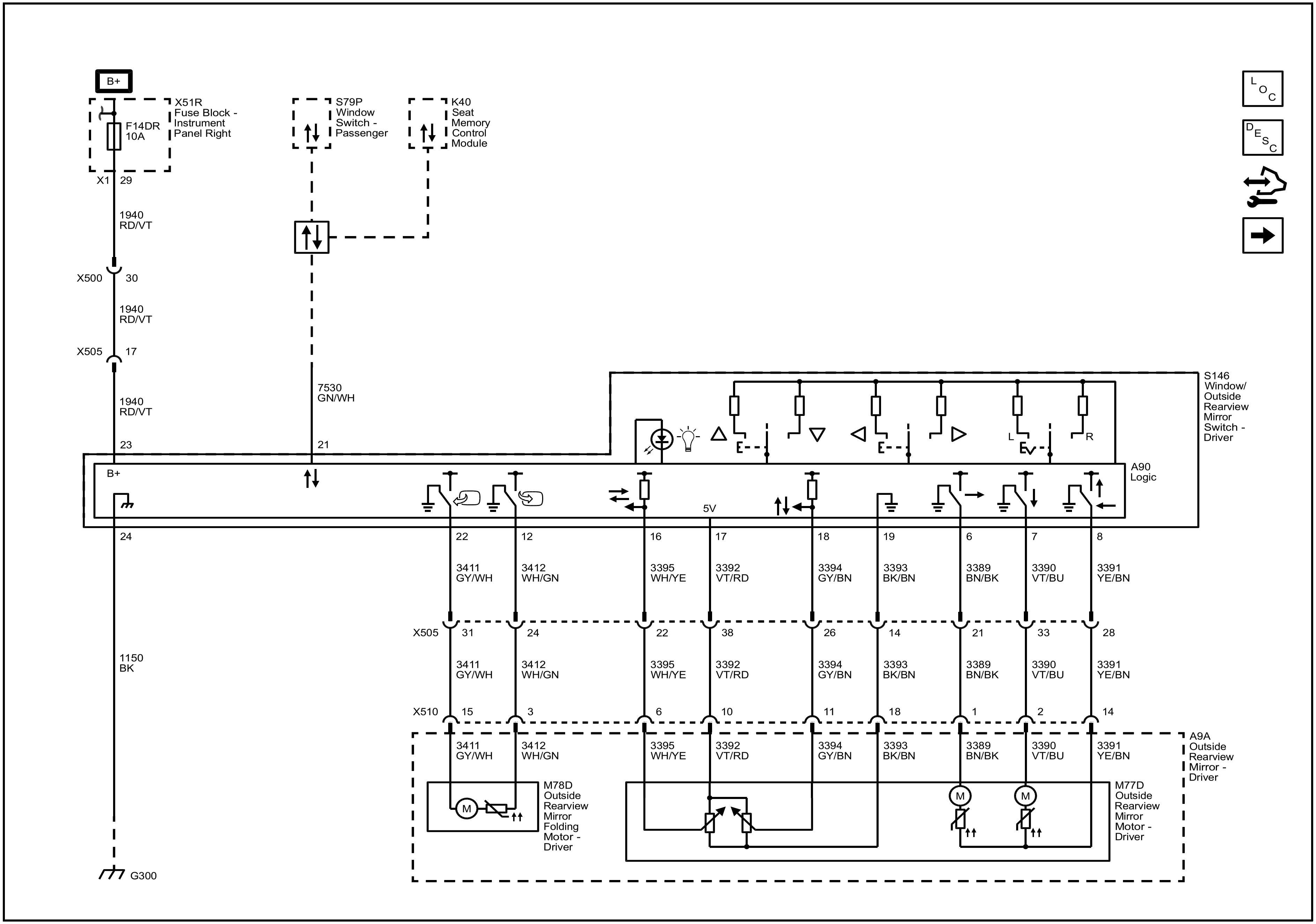
Mirrors

Schematic and Routing Diagrams

Inside Rearview Mirror Schematics (Inside Rearview Mirror)


5255767
LOC
DESC
X50A Fuse Block - Underhood
KR61 Trailer Backup Lamps Relay
F54UA 10A
X2
G2
X51R Fuse Block - Instrument Panel Right
KR73 Ignition Main Relay
F24DR 10A
X2
15
24 GN/WH
40
X275
24 GN/WH
33
X256
24 GN/WH
1139 VT/WH
Image Display Camera Schematics
COAX
DRZ
X2
BK
Outside Rearview Mirror Schematics
1691 BK/YE
1690 YE/WH
DD8/DRZ
DD8/DRZ
DD8/DRZ
DD8/DRZ
X1
1
8
9
2
R
IGN
D
A10 Inside Rearview Mirror
A90 Logic
P7 Display
(DRZ)
DRZ
DRZ
DRZ
DRZ
DRZ
DRZ
A1 Mirror Dimming
X1
5
1851 BK/WH
G200

Outside Rearview Mirror Schematics (Controls and Driver (A45))


B+
X51R
Fuse Block -
Instrument
Panel Right
F14DR
10A
X1 29
1940
RD/VT
X500 30
1940
RD/VT
X505 17
1940
RD/VT
23
B+
24
1150
BK
G300
S79P
Window
Switch -
Passenger
K40
Seat
Memory
Control
Module
7530
GN/WH
21
S146
Window/
Outside
Rearview
Mirror
Switch -
Driver
A90
Logic
L
R
5V
22
12
16
17
18
19
6
7
8
3411
GY/WH
3412
WH/GN
3395
WH/YE
3392
VT/RD
3394
GY/BN
3393
BK/BN
3389
BN/BK
3390
VT/BU
3391
YE/BN
X505
31
24
22
38
26
14
21
33
28
X510
15
3
6
10
11
18
1
2
14
A9A
Outside
Rearview
Mirror -
Driver
M78D
Outside
Rearview
Mirror
Folding
Motor -
Driver
M
M77D
Outside
Rearview
Mirror
Motor -
Driver
L O C
D E S C

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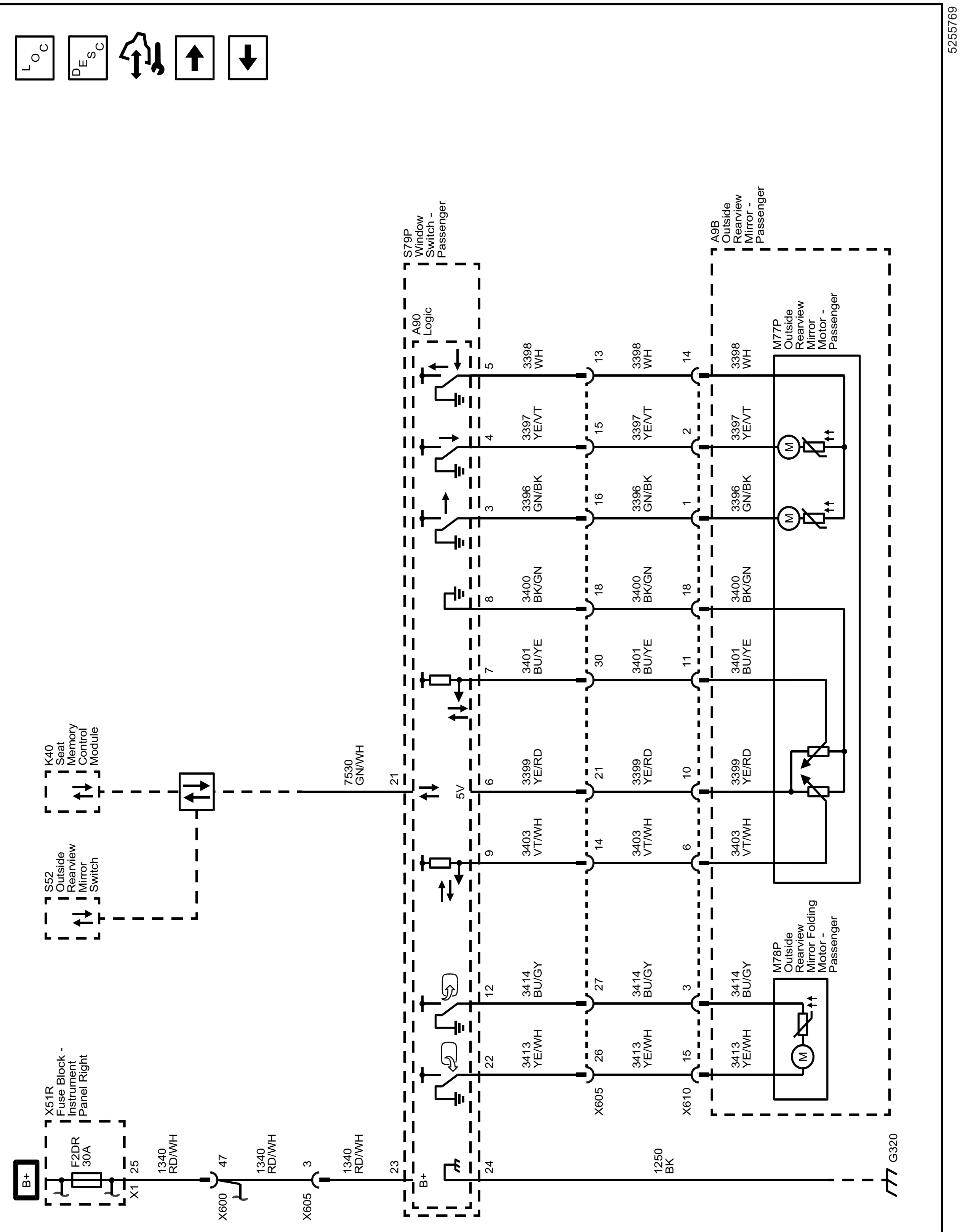
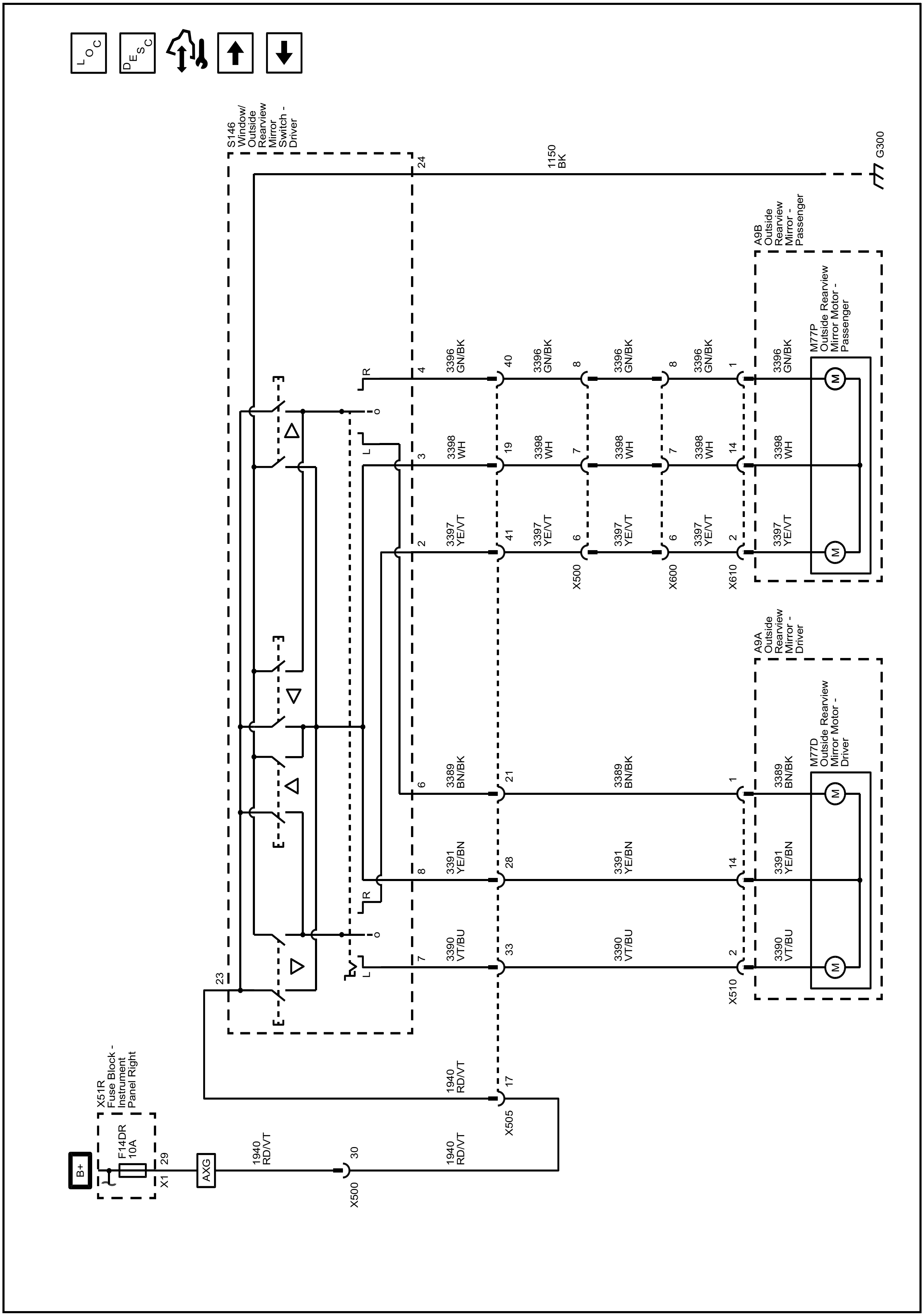
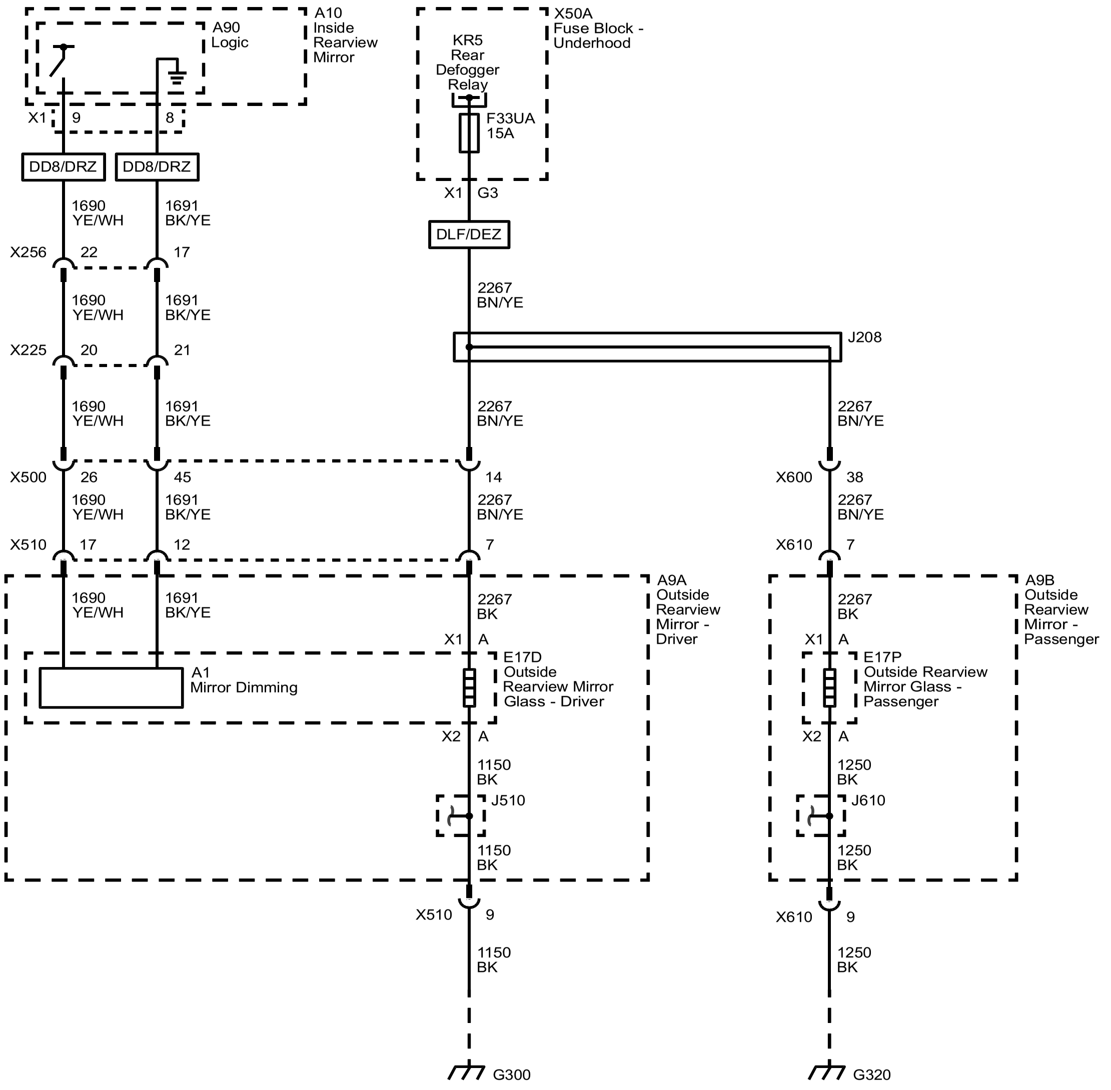
Outside Rearview Mirror Schematics (Passenger (A45))


5255769
LOC
DESC
B+
X51R Fuse Block - Instrument Panel Right
F2DR 30A
X1 25
1340 RD/WH
X600 47
1340 RD/WH
X605 3
1340 RD/WH
23
B+
24
1250 BK
G320
S52 Outside Rearview Mirror Switch
K40 Seat Memory Control Module
7530 GN/WH
21
S79P Window Switch - Passenger
A90 Logic
5V
22
12
9
6
7
8
3
4
5
3413 YE/WH
3414 BU/GY
3403 VT/WH
3399 YE/RD
3401 BU/YE
3400 BK/GN
3396 GN/BK
3397 YE/VT
3398 WH
X605
26
27
14
21
30
18
16
15
13
X610
15
3
6
10
11
18
1
2
14
A9B Outside Rearview Mirror - Passenger
M77P Outside Rearview Mirror Motor - Passenger
M78P Outside Rearview Mirror Folding Motor - Passenger
M
M
M

Outside Rearview Mirror Schematics (Position (AXG-A45))


5255770
LOC
DESC
S146 Window/ Outside Rearview Mirror Switch - Driver
24
1150 BK
G300
A9B Outside Rearview Mirror - Passenger
M77P Outside Rearview Mirror Motor - Passenger
R
L
4
3396 GN/BK
40
8
1
3
3398 WH
19
7
14
2
3397 YE/VT
41
6
X500
X600
X610
A9A Outside Rearview Mirror - Driver
M77D Outside Rearview Mirror Motor - Driver
M
6
3389 BN/BK
21
8
3391 YE/BN
28
7
3390 VT/BU
33
X510
23
X51R Fuse Block - Instrument Panel Right
F14DR 10A
B+
X1 29
AXG
1940 RD/VT
30
17
X505

Outside Rearview Mirror Schematics (Dimming (DD8/DRZ) and Heating (DLF/DEZ))


A10
Inside
Rearview
Mirror
A90
Logic
X1
9
8
DD8/DRZ
DD8/DRZ
1690
YE/WH
1691
BK/YE
X256
22
17
X225
20
21
X500
26
45
14
X510
17
12
7
X50A
Fuse Block -
Underhood
KR5
Rear
Defogger
Relay
F33UA
15A
X1
G3
DLF/DEZ
2267
BN/YE
J208
X600
38
X610
7
A9A
Outside
Rearview
Mirror -
Driver
2267
BK
X1
A
E17D
Outside
Rearview Mirror
Glass - Driver
A1
Mirror Dimming
X2
A
1150
BK
J510
X510
9
G300
A9B
Outside
Rearview
Mirror -
Passenger
2267
BK
E17P
Outside Rearview
Mirror Glass -
Passenger
1250
BK
J610
X610
9
G320

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Description and Operation

Automatic Day-Night Mirror Description and Operation

Inside Rearview Mirror with the Automatic Day-Night Feature System Operation

The inside rearview mirror uses 2 photocell sensors. One sensor is the headlight sensor, located on the face side of the mirror. The headlight sensor is used to determine light conditions present at the mirror face. The other sensor is the ambient light sensor, located on the rear of the mirror or windshield side. The ambient light sensor is used to determine the exterior light conditions. With a low exterior light condition detected, and a high light condition from behind the car, at the headlight sensor, the inside rearview mirror will automatically darken the face of the mirror.

In the daytime, the mirror is in a normal state because of the high exterior light condition that is indicated by the ambient light sensor. With the gear selector lever in the REVERSE position and the engine running, backup lamp supply voltage is supplied as an input to the inside rearview mirror. The mirror monitors this input to disable the automatic day-night feature. This allows the driver to see objects in the mirror clearly when backing up, even during the night.

Driver Outside Rearview Mirror with Automatic Day-Night System Operation (If Equipped)

The automatic day-night feature of the driver outside rearview mirror is controlled by the inside rearview mirror. The inside rearview mirror supplies control and low reference to the driver outside rearview mirror. At night, with the automatic day-night feature enabled, the driver outside rearview mirror will automatically darken with the inside rearview mirror to reduce glare from headlamps behind the vehicle.

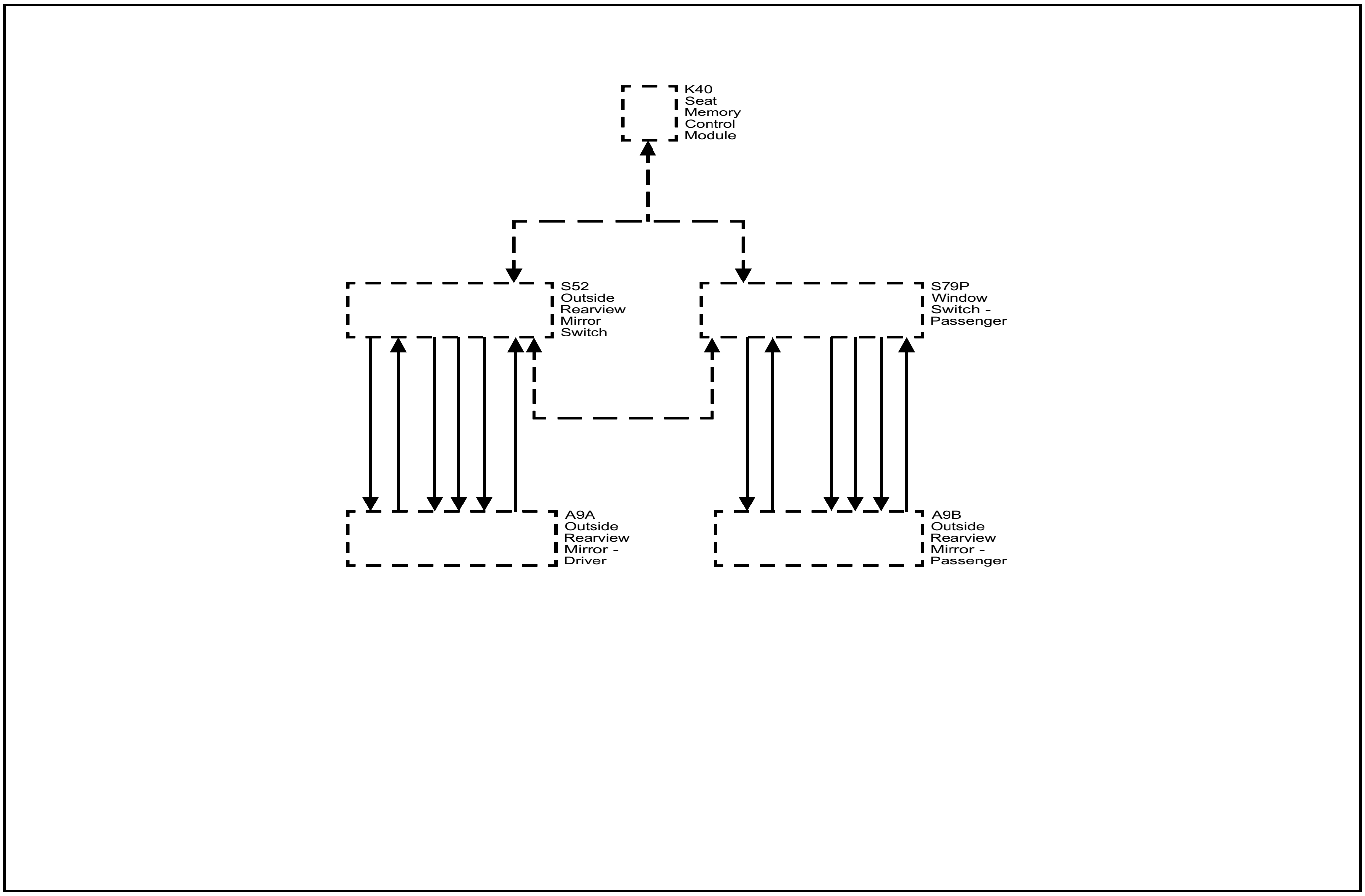
Outside Mirror Description and Operation (With A45)

Power Mirror System Components

The power mirror system consists of the following components:

- Memory Seat Control Module
- Outside Rearview Mirror Switch
- Passenger Window Switch
- Driver Outside Rearview Mirror
- Passenger Outside Rearview Mirror

Power Mirrors with A45 Block Diagram


K40 Seat Memory Control Module
S52 Outside Rearview Mirror Switch
S79P Window Switch - Passenger
A9A Outside Rearview Mirror - Driver
A9B Outside Rearview Mirror - Passenger
3520568

Power Mirror System Controls

The outside mirror switch and passenger window switch are on a serial data circuit with the memory seat control module as the master. The mirror select and directional control switches are inputs to the memory seat module through the serial data circuit. When the memory seat module receives switch inputs from the outside mirror switch, mirror output commands are sent to the appropriate switch through the serial data circuit. The outside mirror switch and passenger window switch control the left and right outside rear view mirrors through bi-directional motor control circuits. The motor control circuits are floating while in an inactive state and the switches will apply power and ground to the control circuits as necessary to move the mirror in the commanded direction.

Mirror position is determined by both horizontal and vertical position sensors in each of the power mirrors. The outside mirror switch and passenger window switch supply a 5 V reference, low reference, and horizontal and vertical position signal circuits to these sensors. The signal circuits are referenced from 5 V by the switches and the signal circuit voltage levels represent the mirror positions. The mirror positions are sent to the memory seat module through the serial data circuit where they are stored for memory mirror operation. When the memory seat module receives a memory recall command, the memory seat module will send the go to position commands to the outside mirror switch and passenger window switch. The switches will then drive the appropriate mirror motors to the commanded position sensor settings.

Mirror Folding

The outside rearview mirror switch sends the mirror select and mirror fold/unfold inputs to the passenger window switch and the memory seat control module through LIN data. When the memory seat control module receives a fold/unfold signal it will send a fold/unfold command to the outside rearview mirror switch and the passenger window switch. The outside mirrors will fold or unfold depending on their current state. The outside rearview mirror switch and the passenger window switch control the fold/unfold motors through bi-directional control circuits. If equipped with auto folding mirrors, the BCM receives the input of the lock/unlock button being held on the transmitter and sends the signal to the memory seat module through serial data to command the mirrors to fold/unfold.

Heated Mirrors

The heated mirrors are controlled through the rear defog relay. Whenever the rear window defogger is turned on battery voltage is supplied to the mirror heater elements through the left and right mirror heater element control circuits.

Outside Mirror Description and Operation (Without A45)

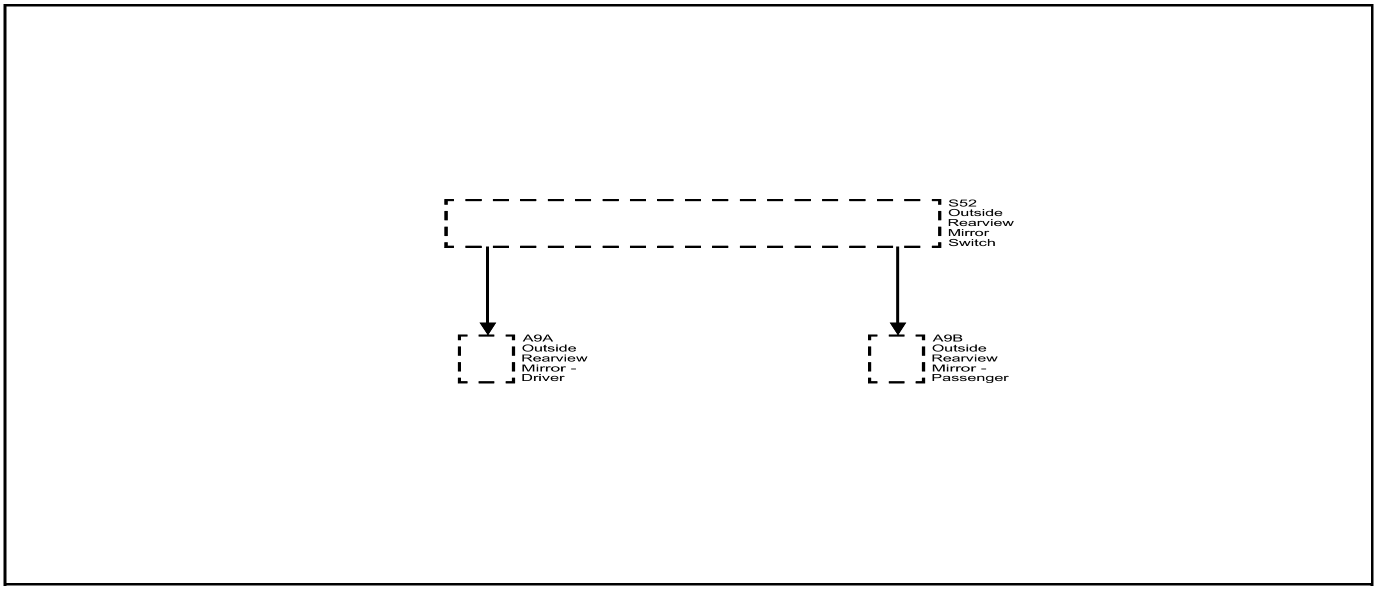
Power Mirror System Components

The power mirror system consists of the following components:

- Mirror direction switch — Controls the left, right, up and down movements of the mirrors
- Mirror select switch — Allows the operator to select the mirror to be moved
- Left outside mirror — Contains both the horizontal and vertical mirror motors
- Right outside mirror — Contains both the horizontal and vertical mirror motors

Each of the outside power mirrors contains 2 motors. The up-down motor operates the vertical directions and the left-right motor operates the horizontal directions. Each of the power mirror motors are internally circuit breaker protected.

Power Mirrors Without A45 Block Diagram



3270441

Power Mirror System Controls

The outside mirror switch incorporates a mirror select switch and a 4 position mirror direction switch.

The mirror select switch allows the driver to select the mirror to be moved by turning the switch to L position enabling the left outside mirror or turning the switch to R position enabling the right outside mirror.

The mirror direction switch is a 4 position switch that allows the operator to move the selected mirror up, down, left or right.

Power Mirror System Operation

The outside mirror switch receives power through the battery positive voltage circuit from the underhood fuse block. The outside mirror switch also receives a constant ground.

The 4 positions of the direction switch have multiple switch contacts. When not in use, the directional contacts are isolated from any circuit. Each of the contacts are connected to opposing sides of the appropriate mirror motors through the selector switch. The selector switch interrupts or completes these circuits depending on the position of the selector switch, L or R.

If the mirror select switch is placed in the L position and the up switch is pressed, battery voltage will be supplied to the driver outside mirror vertical motor through the driver mirror motor up control circuit and return to the mirror switch through the driver mirror motor left/down control circuit, then to ground and the mirror will move up. If the down switch is pressed, the driver mirror motor left/down control circuit supplies battery voltage and the driver mirror motor up control circuit completes the path to the mirror switch, then to ground and the mirror will move down.

The remainder of the mirror functions operate in the same manner as described above. Placing the mirror control switch in opposing positions, left/right or up/

down, will reverse the voltage polarity to the mirror motor, utilizing the same circuits and the mirror will move accordingly.

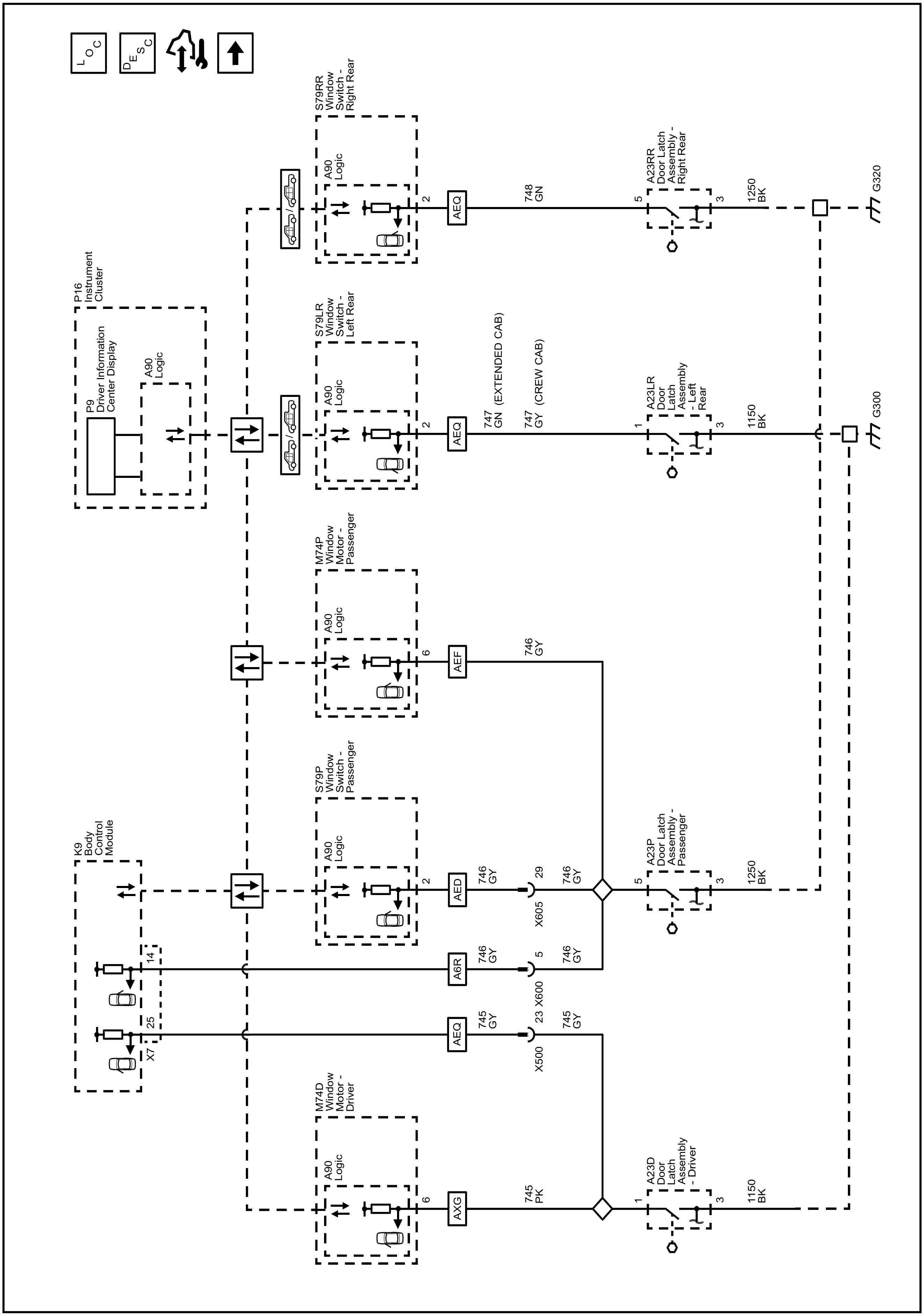
Heated Mirrors

The heated mirrors are controlled through the rear defog relay. Whenever the rear window defogger is turned ON, battery voltage is supplied to the mirror heater elements through the left and right mirror heater element control circuits.

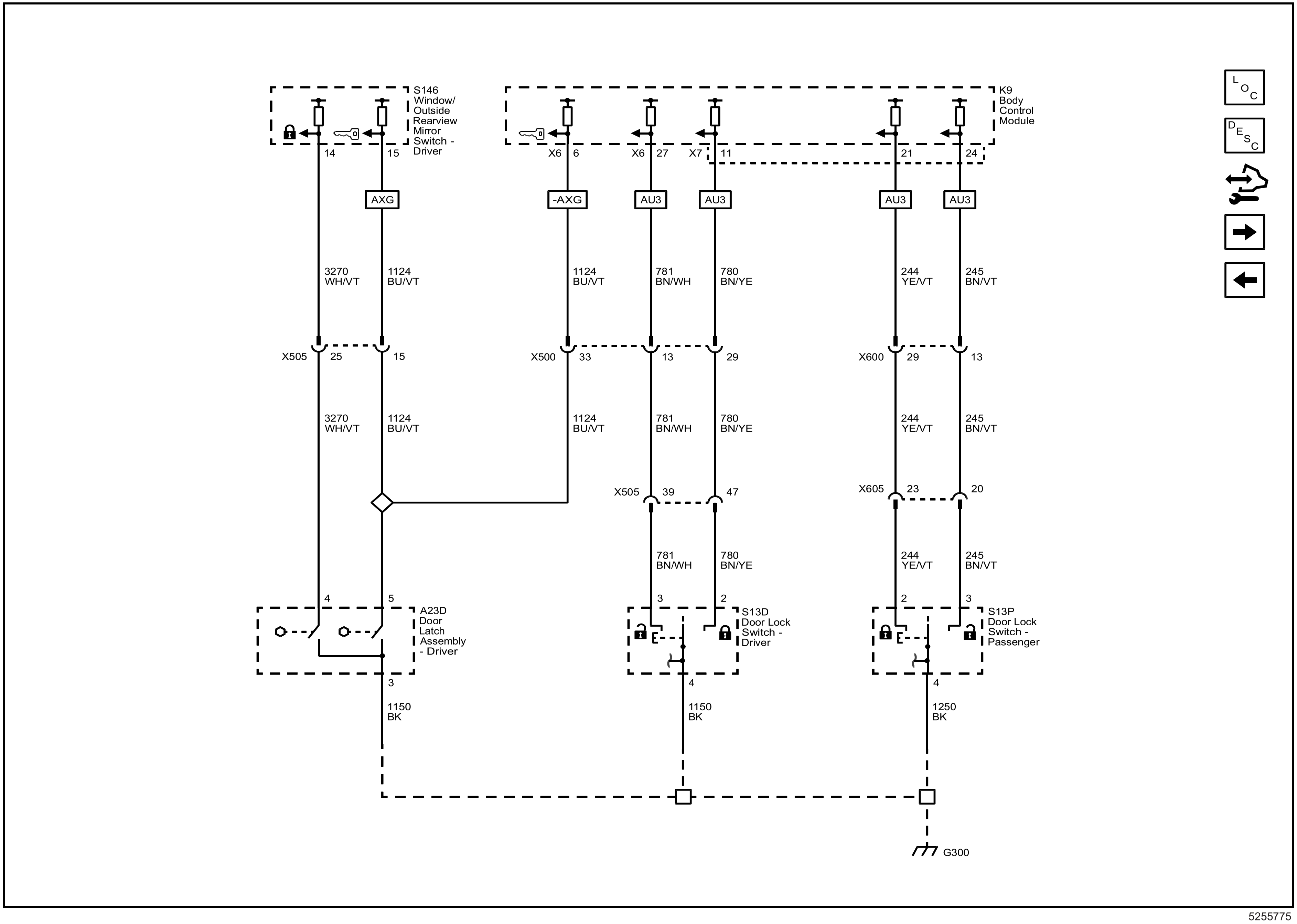
Vehicle Access

Schematic and Routing Diagrams

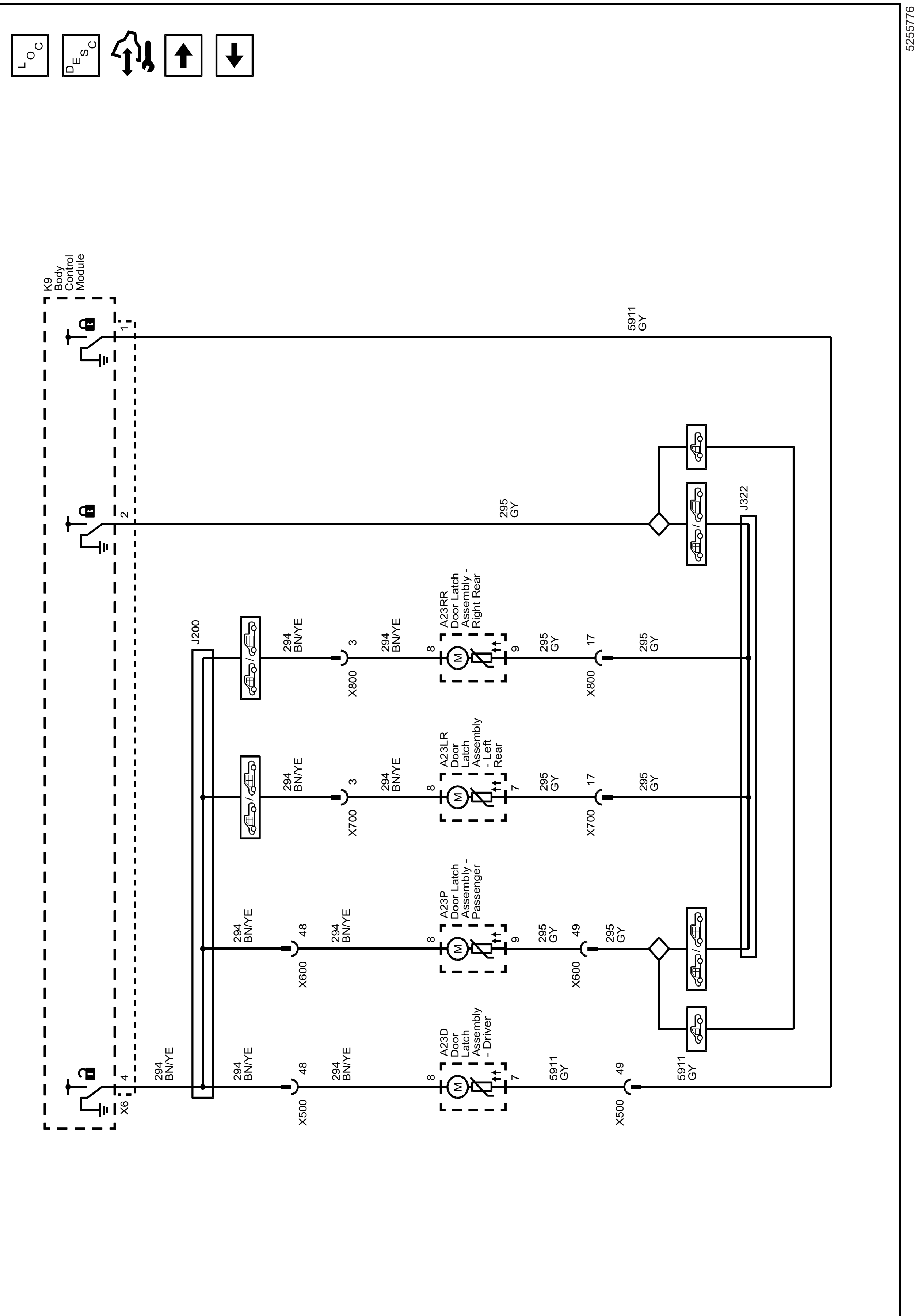
Door Lock/Indicator Schematics (Ajar Switches)


5255773
LOC
DESC
K9 Body Control Module
X7
14
25
P16 Instrument Cluster
P9 Driver Information Center Display
A90 Logic
M74D Window Motor - Driver
S79P Window Switch - Passenger
M74P Window Motor - Passenger
S79LR Window Switch - Left Rear
S79RR Window Switch - Right Rear
A90 Logic
6
2
6
2
2
AXG
AEQ
A6R
AED
AEF
AEQ
AEQ
745 PK
745 GY
746 GY
746 GY
746 GY
747 GN (EXTENDED CAB)
747 GY (CREW CAB)
748 GN
23 X500
5 X600
29 X605
745 GY
746 GY
746 GY
A23D Door Latch Assembly - Driver
A23P Door Latch Assembly - Passenger
A23LR Door Latch Assembly - Left Rear
A23RR Door Latch Assembly - Right Rear
1
3
5
3
1
3
5
3
1150 BK
1250 BK
1150 BK
1250 BK
G300
G320

Door Lock/Indicator Schematics (Controls and Lock Indicators)

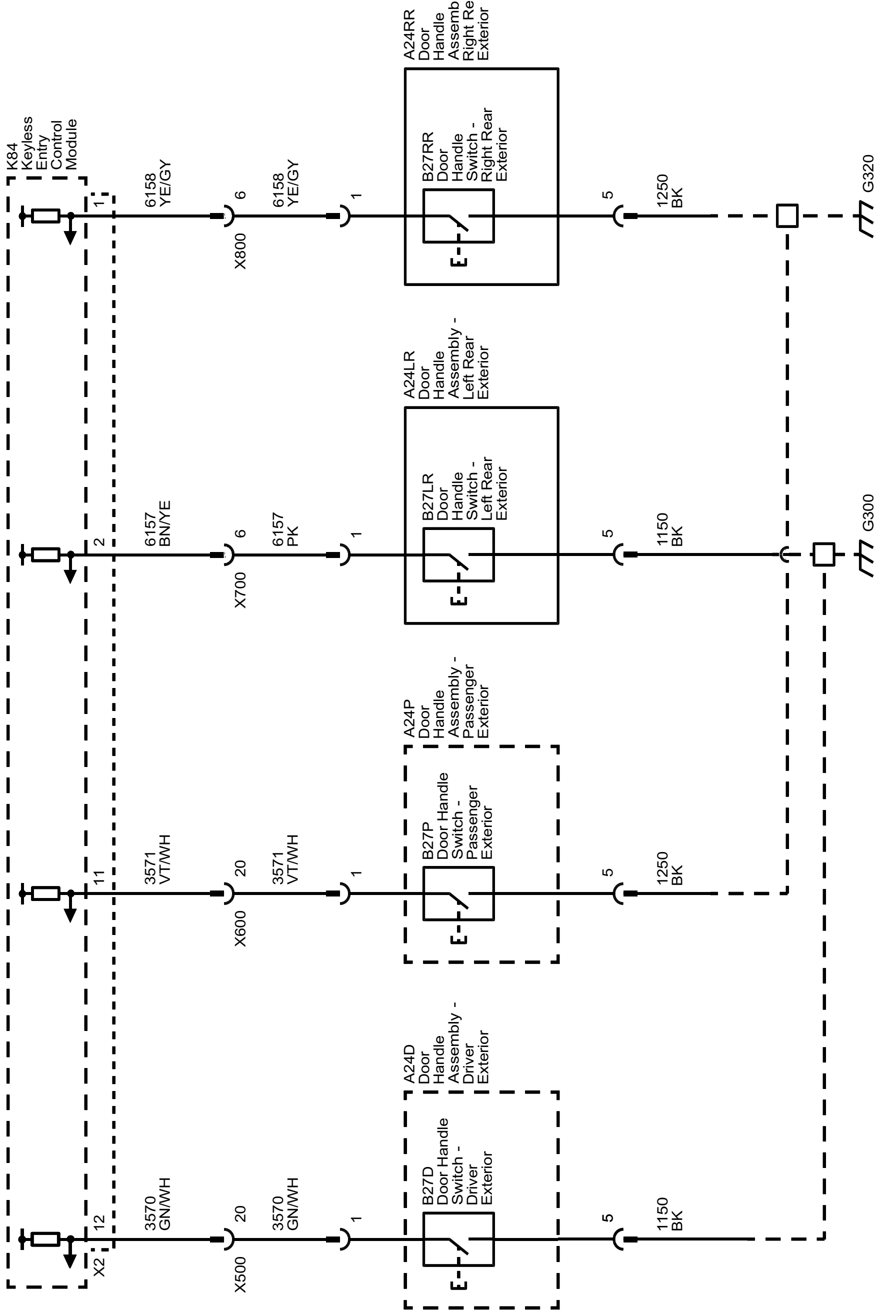

L O C
D E S C
S146 Window/ Outside Rearview Mirror Switch - Driver
K9 Body Control Module
14
15
X6 6
X6 27
X7 11
21
24
AXG
-AXG
AU3
AU3
AU3
AU3
3270 WH/VT
1124 BU/VT
1124 BU/VT
781 BN/WH
780 BN/YE
244 YE/VT
245 BN/VT
X505 25
15
X500 33
13
29
X600 29
13
3270 WH/VT
1124 BU/VT
1124 BU/VT
781 BN/WH
780 BN/YE
244 YE/VT
245 BN/VT
X505 39
47
X605 23
20
781 BN/WH
780 BN/YE
244 YE/VT
245 BN/VT
4
5
3
2
2
3
A23D Door Latch Assembly - Driver
S13D Door Lock Switch - Driver
S13P Door Lock Switch - Passenger
3
4
4
1150 BK
1150 BK
1250 BK
G300
5255775

Door Lock/Indicator Schematics (Actuators)

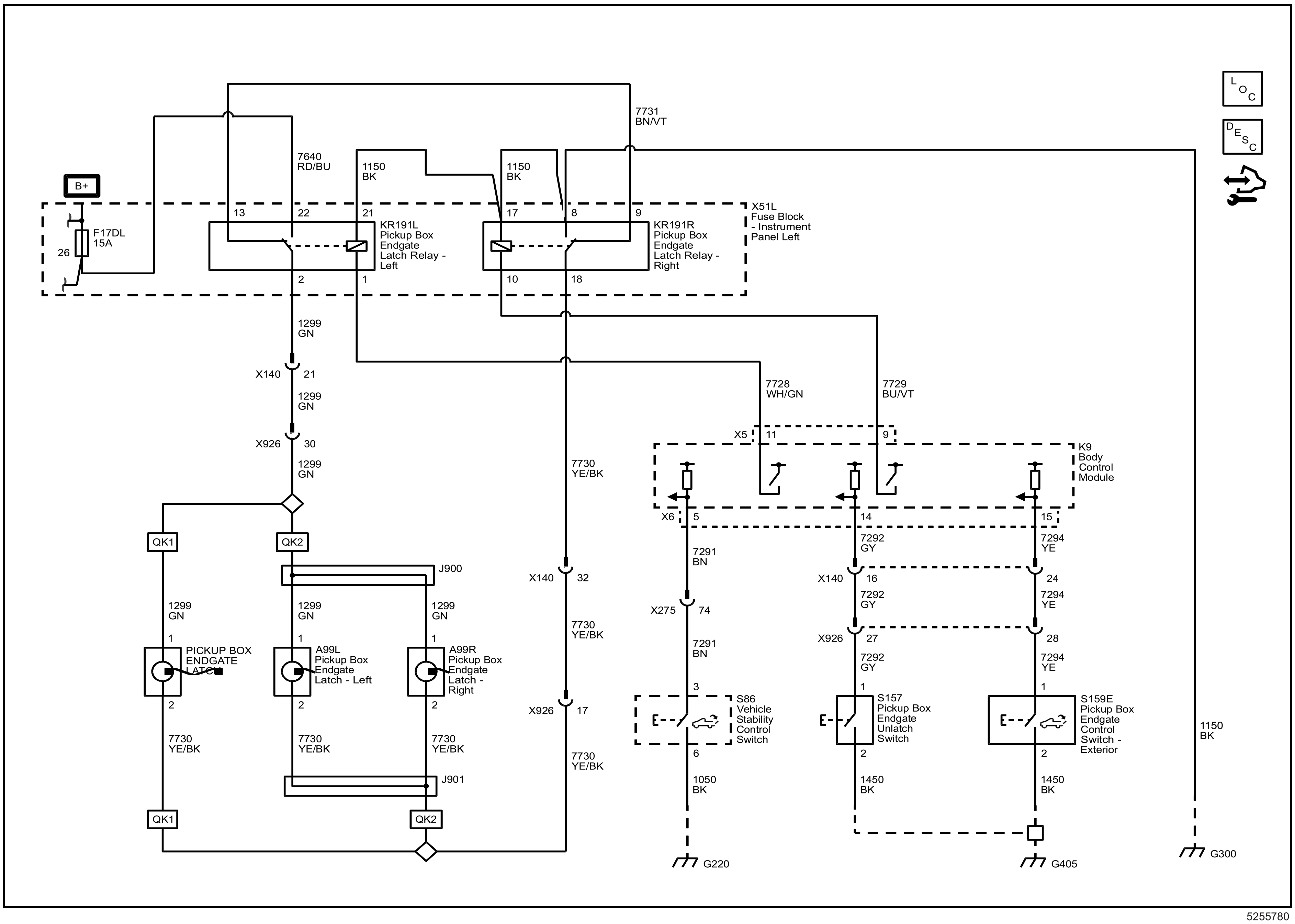

5255776
K9 Body Control Module
1
2
4
X6
5911 GY
295 GY
294 BN/YE
J200
J322
X500
X600
X700
X800
48
3
8
7
9
49
17
A23D Door Latch Assembly - Driver
A23P Door Latch Assembly - Passenger
A23LR Door Latch Assembly - Left Rear
A23RR Door Latch Assembly - Right Rear
M

Door Lock/Indicator Schematics (Handle Switches)

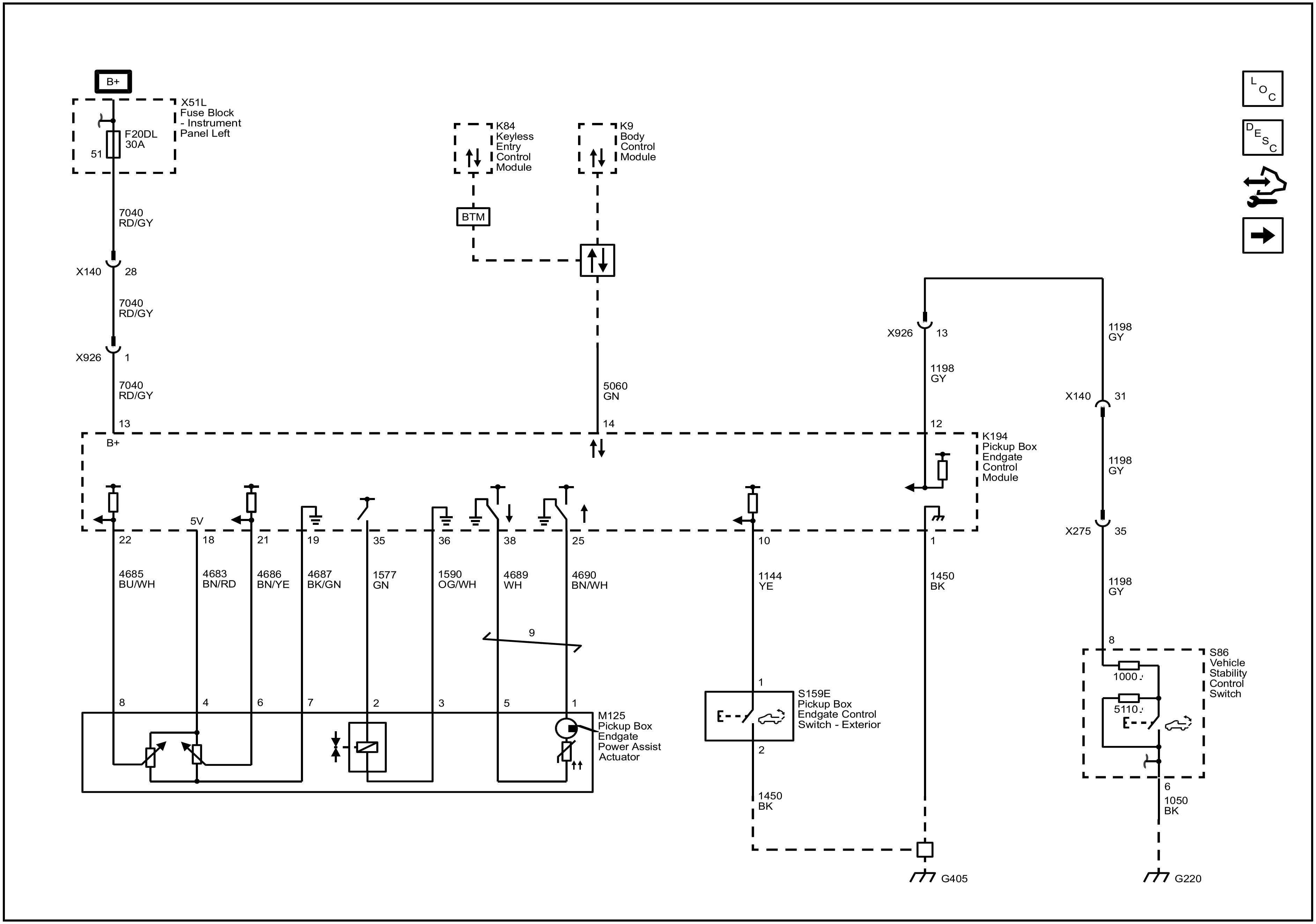
5255777


K84 Keyless Entry Control Module
X2
12
11
2
1
3570 GN/WH
3571 VT/WH
6157 BN/YE
6158 YE/GY
X500
X600
X700
X800
20
20
6
6
3570 GN/WH
3571 VT/WH
6157 PK
6158 YE/GY
1
1
1
1
A24D Door Handle Assembly - Driver Exterior
B27D Door Handle Switch - Driver Exterior
A24P Door Handle Assembly - Passenger Exterior
B27P Door Handle Switch - Passenger Exterior
A24LR Door Handle Assembly - Left Rear Exterior
B27LR Door Handle Switch - Left Rear Exterior
A24RR Door Handle Assembly - Right Rear Exterior
B27RR Door Handle Switch - Right Rear Exterior
5
5
5
5
1150 BK
1250 BK
1150 BK
1250 BK
G300
G320

Release Systems Schematics (Endgate Release (QT5))

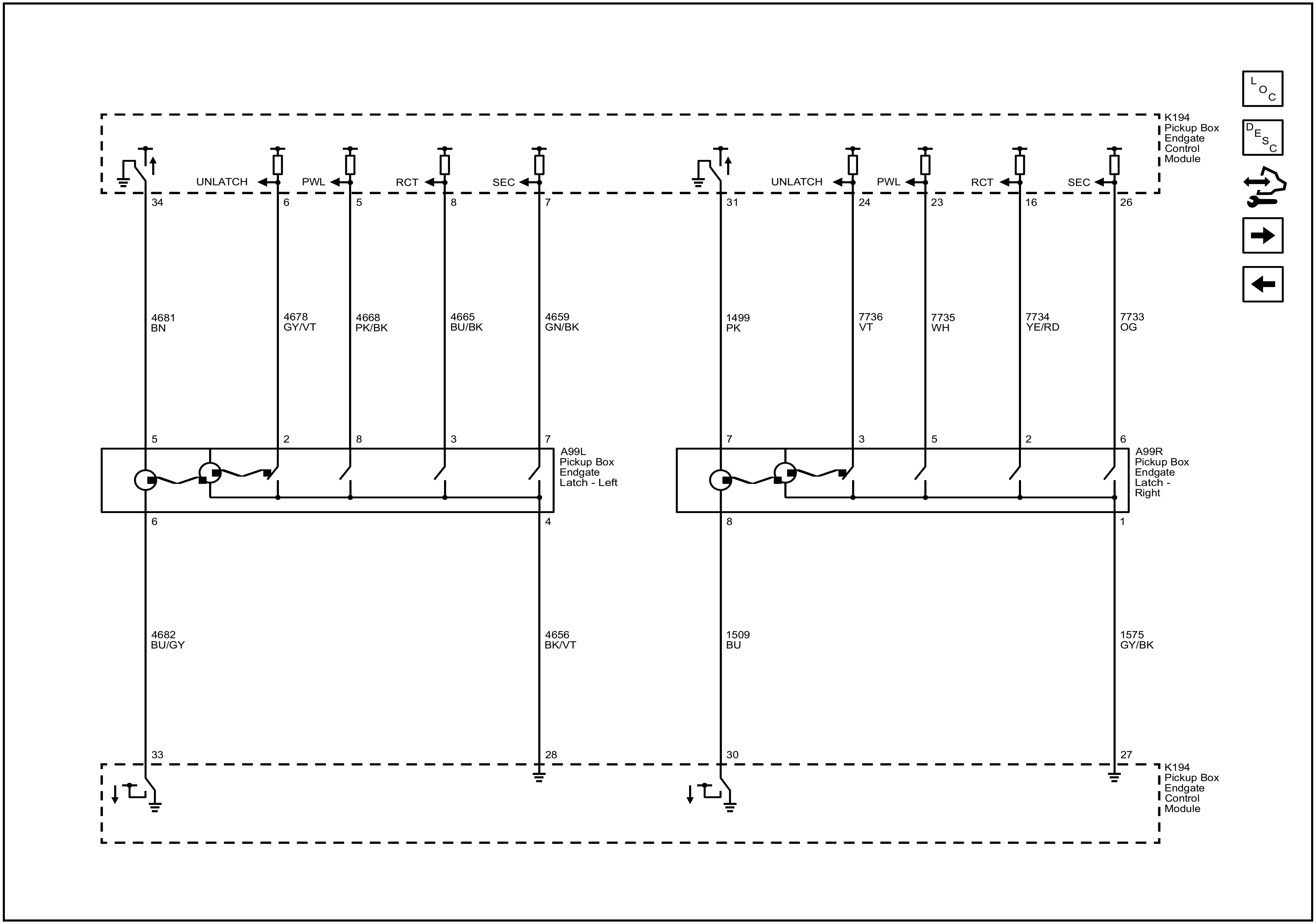

L O C
D E S C
B+
F17DL
15A
26
7640
RD/BU
1150
BK
1150
BK
7731
BN/VT
13
22
21
17
8
9
KR191L
Pickup Box
Endgate
Latch Relay -
Left
KR191R
Pickup Box
Endgate
Latch Relay -
Right
X51L
Fuse Block
- Instrument
Panel Left
2
1
10
18
1299
GN
X140
21
1299
GN
X926
30
1299
GN
7728
WH/GN
7729
BU/VT
X5
11
9
K9
Body
Control
Module
X6
5
14
15
7730
YE/BK
7291
BN
7292
GY
7294
YE
QK1
QK2
J900
X140
32
X140
16
24
X275
74
7292
GY
7294
YE
X926
27
28
1299
GN
1299
GN
1299
GN
1
1
1
PICKUP BOX
ENDGATE
LATCH
A99L
Pickup Box
Endgate
Latch - Left
A99R
Pickup Box
Endgate
Latch -
Right
7291
BN
7292
GY
7294
YE
3
1
1
X926
17
S86
Vehicle
Stability
Control
Switch
S157
Pickup Box
Endgate
Unlatch
Switch
S159E
Pickup Box
Endgate
Control
Switch -
Exterior
2
2
2
6
2
2
7730
YE/BK
7730
YE/BK
7730
YE/BK
7730
YE/BK
1150
BK
J901
1050
BK
1450
BK
1450
BK
QK1
QK2
G220
G405
G300
5255780

Endgate Schematics (Power Endgate Controls (QT6))



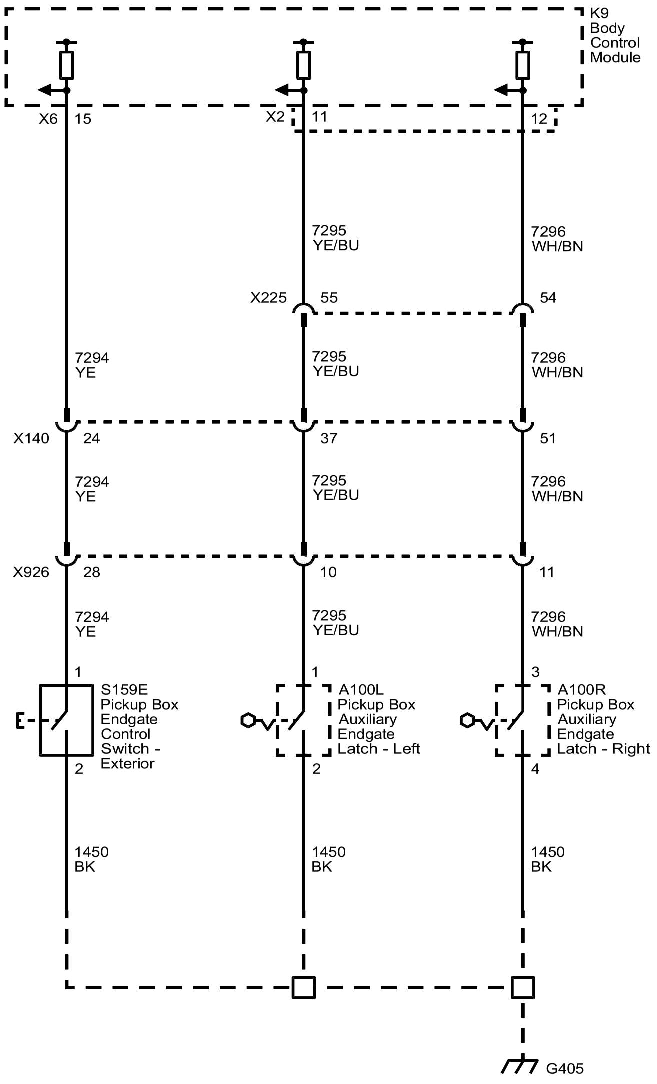
B+
X51L
Fuse Block
- Instrument
Panel Left
F20DL
30A
51
7040
RD/GY
X140
28
7040
RD/GY
X926
1
7040
RD/GY
13
B+
K84
Keyless
Entry
Control
Module
BTM
K9
Body
Control
Module
5060
GN
14
K194
Pickup Box
Endgate
Control
Module
X926
13
1198
GY
12
1198
GY
X140
31
1198
GY
X275
35
1198
GY
8
S86
Vehicle
Stability
Control
Switch
1000 Ω
5110 Ω
6
1050
BK
G220
5V
22
4685
BU/WH
18
4683
BN/RD
21
4686
BN/YE
19
4687
BK/GN
35
1577
GN
36
1590
OG/WH
38
4689
WH
25
4690
BN/WH
9
8
4
6
7
2
3
5
1
M125
Pickup Box
Endgate
Power Assist
Actuator
10
1144
YE
1
S159E
Pickup Box
Endgate Control
Switch - Exterior
2
1450
BK
1
1450
BK
G405
5255782

Endgate Schematics (Power Endgate Latches (QT6))


K194
Pickup Box
Endgate
Control
Module
UNLATCH
PWL
RCT
SEC
UNLATCH
PWL
RCT
SEC
34
6
5
8
7
31
24
23
16
26
4681
BN
4678
GY/VT
4668
PK/BK
4665
BU/BK
4659
GN/BK
1499
PK
7736
VT
7735
WH
7734
YE/RD
7733
OG
5
2
8
3
7
7
3
5
2
6
A99L
Pickup Box
Endgate
Latch - Left
A99R
Pickup Box
Endgate
Latch -
Right
6
4
8
1
4682
BU/GY
4656
BK/VT
1509
BU
1575
GY/BK
33
28
30
27
K194
Pickup Box
Endgate
Control
Module
L O C
D E S C

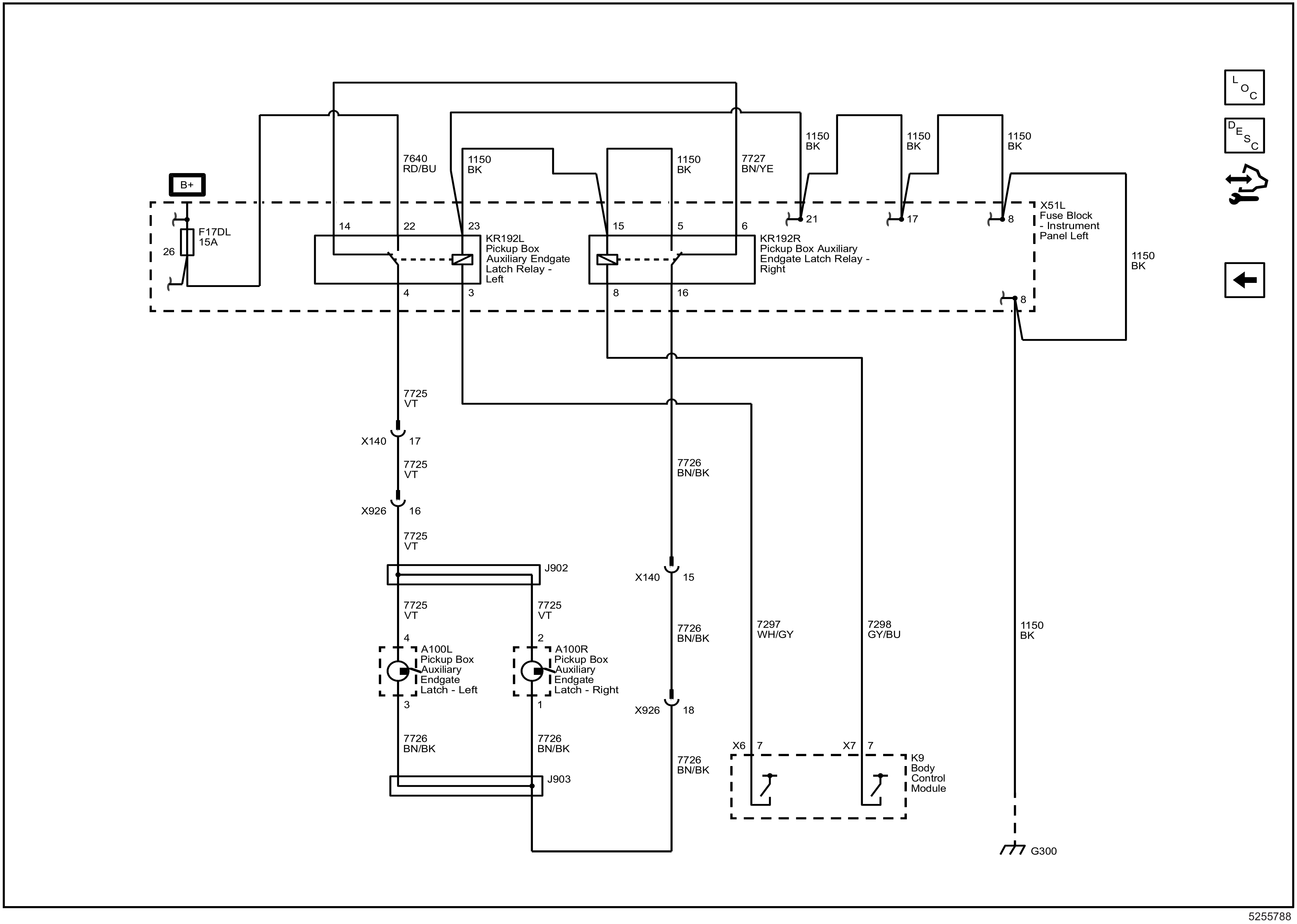
5255784

Endgate Schematics (Auxiliary Endgate Latch Controls and Switches (QK2))


K9
Body
Control
Module
X6 15
X2 11
12
7295
YE/BU
7296
WH/BN
X225 55
54
7294
YE
7295
YE/BU
7296
WH/BN
X140 24
37
51
7294
YE
7295
YE/BU
7296
WH/BN
X926 28
10
11
7294
YE
7295
YE/BU
7296
WH/BN
1
S159E
Pickup Box
Endgate
Control
Switch -
Exterior
2
1
A100L
Pickup Box
Auxiliary
Endgate
Latch - Left
2
3
A100R
Pickup Box
Auxiliary
Endgate
Latch - Right
4
1450
BK
1450
BK
1450
BK
G405

5255786

Endgate Schematics (Auxiliary Endgate Latch Motors (QK2))


LOC
DESC
B+
F17DL
15A
26
X51L
Fuse Block
- Instrument
Panel Left
14
22
23
7640
RD/BU
1150
BK
KR192L
Pickup Box
Auxiliary Endgate
Latch Relay -
Left
4
3
15
5
6
1150
BK
7727
BN/YE
KR192R
Pickup Box Auxiliary
Endgate Latch Relay -
Right
8
16
1150
BK
21
1150
BK
17
1150
BK
8
1150
BK
8
7725
VT
X140
17
7725
VT
X926
16
7725
VT
J902
7725
VT
7725
VT
4
A100L
Pickup Box
Auxiliary
Endgate
Latch - Left
3
2
A100R
Pickup Box
Auxiliary
Endgate
Latch - Right
1
7726
BN/BK
7726
BN/BK
J903
7726
BN/BK
X140
15
7726
BN/BK
X926
18
7726
BN/BK
7297
WH/GY
7298
GY/BU
X6
7
X7
7
K9
Body
Control
Module
1150
BK
G300
5255788

Description and Operation

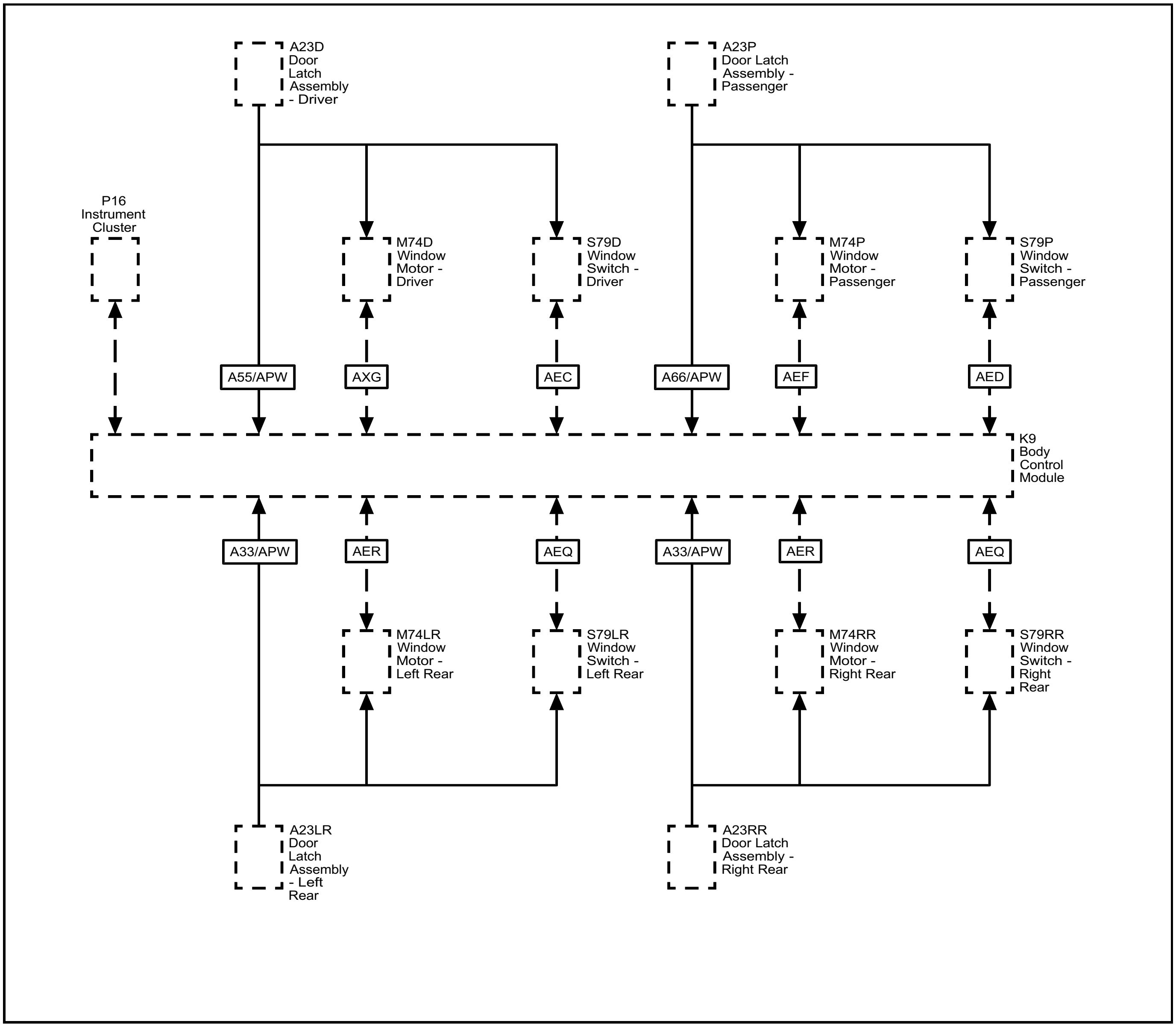
Door Ajar Indicator Description and Operation

Door Ajar Indicator System Components

The door ajar indicator system consists of the following components:

- Body control module
- Instrument cluster
- Driver door latch
- Passenger door latch
- Left rear door latch
- Right rear door latch
- Driver window motor (AXG)
- Driver window switch (AEC)
- Passenger window motor (AEF)
- Passenger window switch (AED)
- Left rear window motor (AER)
- Left rear window switch (AEQ)
- Right rear window motor (AER)
- Right rear window switch (AEQ)

Door Ajar Indicator Block Diagram


A23D Door Latch Assembly - Driver
A23P Door Latch Assembly - Passenger
P16 Instrument Cluster
M74D Window Motor - Driver
S79D Window Switch - Driver
M74P Window Motor - Passenger
S79P Window Switch - Passenger
A55/APW
AXG
AEC
A66/APW
AEF
AED
K9 Body Control Module
A33/APW
AER
AEQ
A33/APW
AER
AEQ
M74LR Window Motor - Left Rear
S79LR Window Switch - Left Rear
M74RR Window Motor - Right Rear
S79RR Window Switch - Right Rear
A23LR Door Latch Assembly - Left Rear
A23RR Door Latch Assembly - Right Rear
3556440

Door Ajar System

Depending upon if the vehicle is equipped with express up/down power windows, express down only power windows, power windows without any express functions or manual crank windows affects how the driver and passenger door ajar signal circuits are configured and monitored.

Driver, Passenger and Rear Door Ajar (AXG, AEF and AER)

The window motors provide a 12V signal to the respective door ajar switch within the door latch to indicate the status of the door. When the door is open, the contract within the ajar switch closes providing a ground part for the signal circuit. The window motor will detect the voltage drop in the ajar signal circuit and will send a serial data message to the body control module. The body control module will then send a message to the instrument cluster which will illuminate the door ajar icon.

Driver, Passenger and Rear Doors Ajar (AEC, AED and AEQ)

The driver, passenger and rear window switches provide a 12V signal to the respective door ajar switch within the door latch to indicate the status of the door. When the door is open, the contract within the ajar switch closes providing a ground part for the signal circuit. The window switch will detect the voltage drop in the ajar signal circuit and will send a serial data message to the body control module. The body control module will then send a message to the instrument cluster which will illuminate the door ajar icon.

Driver, Passenger and Rear Doors Ajar (A55, A66, A33 or Manual Crank Windows)

The body control module provides a 12V signal to each door ajar switch within the door latch to indicate the status of the door. When the door is open, the contract within the ajar switch closes providing a ground part for the signal circuit. The body control module will detect the voltage drop in the ajar signal circuit and will send a message to the instrument cluster which will illuminate the door ajar icon

Endgate Description and Operation (QT6)

System Description

The power endgate system consists of the following components:

- Rear gate module
- Pickup box endgate power assist actuator
- Pickup box endgate position sensor (part of the power assist actuator)
- Interior pickup box endgate control switch (Part of the Instrument panel multifunction switch)
- Exterior pickup box endgate control switch
- Right pickup box endgate latch assembly
- Left pickup box endgate latch assembly
- Keyless entry transmitter
- Remote control door lock receiver

Operation

The power endgate can be commanded to power open and power close by the following methods:

- An open or close command from the interior pickup box endgate control switch
- An open or close command from the exterior pickup box endgate control switch
- An open or close request by a signal from the keyless entry transmitter to the remote control door lock receiver

The rear gate module will respond to a request by commanding the left and right pickup box endgate latches to release the endgate and activate the pickup box endgate power assist actuator and lower the endgate or to raise and cinch the endgate closed.

Power Latch

The rear gate module continuously monitors power endgate operation and calculates its location and direction of travel from an endgate position sensor (part of the power assist actuator). One input returns the position of the endgate relative to the x-axis and y-axis. The rear gate module then uses these 2 inputs together to calculate its angle relative to the endgate.

The left and right pickup box endgate latches are bi-directional motors and latch or unlatch operation is the result of the direction of the motor rotation. The rear gate module controls the left and right pickup box endgate latches through the control circuits by supplying power and ground in the appropriate polarity. The motor control circuits are monitored by the rear gate module prior to activation for a high or low condition and during motor operation for an insufficient current flow condition. The ratchet, pawl, and sector switches are part of the left and right pickup box endgate latches and are used by the rear gate module to determine the state of the latch during the process of latching or unlatching. Each of the latch switch signal circuits are supplied battery voltage and monitored within the rear gate module. The latch switches share a common low reference circuit from the rear gate module and when the switch contacts close the signal circuit goes low and the rear gate module determines the switch to be active.

The exterior pickup box endgate control switch signal circuit is supplied battery voltage by the rear gate module. When the switch is pressed the contacts close and the signal circuit goes low, the rear gate module will detect the voltage drop and will command the endgate to release and lower or to power raise the endgate to the closed position.

For vehicles without the optional passive keyless entry, when the exterior pickup box endgate control switch is pressed, the rear gate module will check the status of the vehicle door locks by sending a serial data message to the body control module requesting the door lock status. If the vehicle doors are locked, the rear gate module will ignore the signal from the exterior pickup box endgate control switch. If the vehicle doors are unlocked, the rear gate module will permit the endgate to unlatch and power open when the exterior pickup box endgate control switch is pressed.

For vehicles with the optional passive keyless entry system, the keyless entry control module monitors the proximity of the keyless entry transmitter. If the exterior pickup box endgate control switch is pressed and the keyless entry transmitter is within range, the keyless entry control module will send a serial data message to the rear gate module indicating the presence of the keyless entry transmitter and the rear gate module will permit the endgate to unlatch and power open. If the doors are locked and the keyless entry transmitter is not within range, the rear gate module will ignore the signal from the exterior pickup box endgate control switch.

Manual Endgate Operation

The endgate can be manually closed from the full-open position when the endgate is lifted in a continuous motion. If the endgate motion is stopped between the full-open and half-closed positions, the lift to close feature can engage and power close the endgate. If the touch pad is pressed during power operation, the endgate will stop and allow manual operation. The endgate must be held after stopping, or it will continue to open

Tailgate Release Unavailable Driver Information Center Message

Power Endgate Functions Disabled Without Setting DTCs

The driver information center displays Tailgate Release Unavailable when a thermal inhibit occurs in the latch or drive unit or the position count is out of range.

The power endgate functions will be restored by performing the following actions:

- Closing the endgate which will reset the position counts
- Closing the endgate and removing the F20DL 30A fuse for greater than 5 minutes

Power Endgate Functions Disabled With DTCs Current

The driver information center displays Tailgate Release Unavailable when the rear gate module control module detects a malfunction in the power endgate system and the system is disabled.

Endgate Description and Operation (QT5 Without MultiPro Tailgate)

Endgate Release System Components

- Body control module (BCM)
- Pickup box endgate control switch-interior (Part of the instrument panel multifunction switch)
- Pickup box endgate control switch-exterior
- Pickup box endgate unlatch actuator
- Pickup box endgate unlatch relay

Endgate Release Operation (Without MutiPro Tailgate Option)

Interior Endgate Release Switch

The body control module monitors the voltage level of the endgate unlatch signal circuit so that when the switch is pressed contacts within the switch closes providing a ground path for the endgate unlatch signal circuit, the voltage within the signal circuit is pulled low, the body control module will detect the voltage drop and if the passenger doors are unlocked, will energize the pickup box endgate unlatch relay.

Exterior Endgate Release Switch

The body control module monitors the status of the vehicle doors, if the doors are locked the body control module will ignore the request from the exterior pickup box endgate control switch. If the passenger doors have been commanded to unlock, pressing the exterior pickup box endgate control switch will close contacts within the switch and provide a ground path for the endgate unlatch signal circuit, the body control module will detect the voltage drop and will energize the pickup box endgate unlatch relay.

If the vehicle has been equipped with the passive keyless entry system and the keyless entry transmitter is within 3 feet (1 meter) of the endgate, pressing the exterior pickup box endgate control switch will also function in the same manner but without unlocking the passenger doors. Refer to *Keyless Entry System Description and Operation on page 8-19* for more information on the passive keyless entry system.

Pickup Box Endgate Unlatch actuator

When body control module receives a endgate release command from the exterior pickup box endgate control switch, the body control module applies brief pulse of voltage to the pickup box endgate unlatch relay control circuit, which energizes the coil side of the relay. The switch side of the pickup box endgate unlatch relay then momentarily closes, supplying a brief pulse of battery positive voltage to the pickup box endgate unlatch actuator. The pickup box endgate unlatch actuator is continuously grounded and when it receives the voltage pulse, it will become energized and the latch will activate releasing the endgate so that it may be manually lowered to an open position.

Endgate Description and Operation (QT5 With MultiPro Tailgate)

Endgate Release System Components

- Body control module (BCM)
- Pickup box endgate control switch-interior (Part of the instrument panel multifunction switch)
- Pickup box endgate control switch-exterior
- Left pickup box endgate latch
- Right pickup box endgate latch
- Left pickup box auxiliary endgate latch
- Right pickup box auxiliary endgate latch
- Left pickup box endgate latch relay
- Right pickup box endgate latch relay

- Left pickup box auxiliary endgate latch relay
- Right pickup box auxiliary endgate latch relay

Endgate Release Operation (With MutiPro Tailgate Option)

Interior Endgate Release Switch

The body control module monitors the voltage level of the endgate unlatch signal circuit so that when the switch is pressed contacts within the switch closes providing a ground path for the endgate unlatch signal circuit, the voltage within the signal circuit is pulled low, the body control module will detect the voltage drop and if the passenger doors are unlocked, will energize the left pickup box endgate latch relay and right pickup box endgate latch relay.

Exterior Endgate Release Switch

The body control module monitors the status of the vehicle doors, if the doors are locked the body control module will ignore the request from the exterior pickup box endgate control switch. If the passenger doors have been commanded to unlock, pressing the appropriate exterior pickup box endgate control switch will close contacts within the switch and provide a ground path for the major or minor endgate unlatch signal circuit, the body control module will detect the voltage drop and will energize the appropriate pickup box endgate latch relays.

If the vehicle has been equipped with the passive keyless entry system and the keyless entry transmitter is within 3 feet (1 meter) of the endgate, pressing the exterior pickup box endgate control switch will also function in the same manner but without unlocking the passenger doors. Refer to *Keyless Entry System Description and Operation on page 8-19* for more information on the passive keyless entry system.

Major Pickup Box Endgate

Note: The auxiliary pickup box endgate must be in the latched position before commanding the major pickup box endgate to release. The body control module will disable the major pickup box endgate release function if the auxiliary pickup box endgate is open or ajar.

When body control module receives a major endgate release command from the exterior pickup box endgate control switch, the body control module applies brief pulse of voltage to the left and right pickup box endgate latch relay control circuits, which energizes the coil side of the relays. The switch side of the left and right pickup box endgate latch relay then momentarily closes, supplying a brief pulse of battery positive voltage to the left and right pickup box endgate latches. The left and right pickup box endgate latches will become energized and the latches will activate releasing the major endgate so that it may be manually lowered to an open position.

Minor Pickup Box Endgate

When body control module receives a major endgate release command from the exterior pickup box endgate control switch, the body control module applies brief pulse of voltage to the left and right pickup box auxiliary endgate latch relay control circuits, which energizes the coil side of the relays. The switch side of the left and right pickup box auxiliary endgate latch relay then momentarily closes, supplying a brief pulse of battery positive voltage to the left and right pickup box auxiliary endgate latches. The left and right pickup box auxiliary endgate latches will become energized and the latches will activate releasing the minor endgate so that it may be manually lowered to an open position.

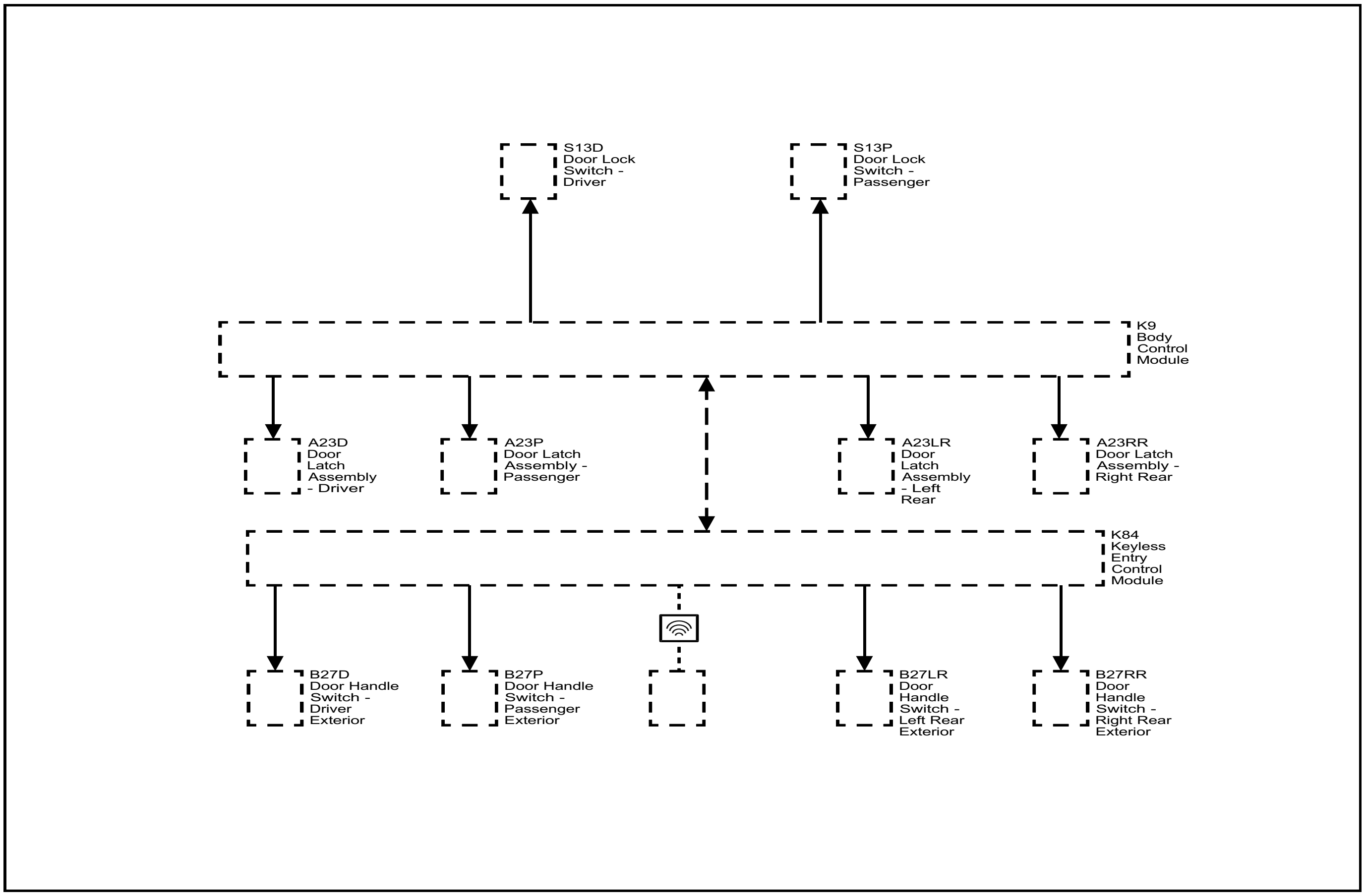
Power Door Locks Description and Operation

Door Lock System Components

The power door lock system consists of the following components:

- Driver door lock switch
- Passenger door lock switch
- Key cylinder switch
- Body control module (BCM)
- Driver door latch
- Passenger door latch
- Left rear door latch
- Right rear door latch
- Exterior door handle switches
- Keyless entry control module

Power Door Locks Block Diagram


S13D Door Lock Switch - Driver
S13P Door Lock Switch - Passenger
K9 Body Control Module
A23D Door Latch Assembly - Driver
A23P Door Latch Assembly - Passenger
A23LR Door Latch Assembly - Left Rear
A23RR Door Latch Assembly - Right Rear
K84 Keyless Entry Control Module
B27D Door Handle Switch - Driver Exterior
B27P Door Handle Switch - Passenger Exterior
B27LR Door Handle Switch - Left Rear Exterior
B27RR Door Handle Switch - Right Rear Exterior

3270435

Door Lock and Unlock Operation

When the driver or passenger door lock switch is activated in the lock or unlock position, the BCM will receive a ground signal on either the door lock switch lock or unlock signal circuits.

The BCM, upon receipt of a lock switch lock or unlock signal, will supply battery voltage to the door lock actuator lock or unlock control circuits. Since the opposite side of the lock actuator is connected to ground through the other lock actuator control circuit, the doors will then lock or unlock as commanded.

The following three circuits are used to operate the lock:

- Driver door unlock
- Passenger door unlock
- All door lock

The driver door lock actuator is isolated so it can be unlocked by itself using the keyless entry transmitter.

Key Cylinder Switch

The driver window switch monitors the voltage level of the driver door lock motor status signal circuit. When the key is inserted into the driver door key cylinder and turned to the Lock position, a switch within the driver door latch closes causing the voltage to drop within the driver door lock motor status signal circuit. The driver window switch will detect the drop in voltage and will send a serial data message to the BCM commanding all the doors to Lock.

The driver key cylinder switch is used by the customer for programming the keyless entry transmitters, The driver window/outside rearview mirror switch monitors the voltage level of the key switch unlock signal circuit and when it detects a reprogramming request, it will send a serial data message to the body control module.

Passive Door Lock/Unlock Operation

The exterior door handle switch signal circuits provide inputs to the keyless entry control module when the exterior door handle switches are activated. These inputs allow the keyless entry control module to detect a door lock or a door unlock request. The keyless entry control module provides a 12 V signal to each exterior door handle switch via the door handle switch signal circuits. When a door handle switch is pressed, the switch closes and the voltage signal within the signal circuit is pulled to ground. The keyless entry control module will detect the voltage drop and a low frequency antenna will transmit a challenge to the keyless entry transmitter. If the challenge is met, the keyless entry transmitter will respond and the keyless entry control module will send a serial data message to the body control module to command the door(s) to be locked or unlocked

BLANK

Section 3

Brakes

Trailer Brake Controls 3-3
  Schematic and Routing Diagrams 3-3
    Trailer Brake Control Schematics 3-4
  Description and Operation 3-6
    Trailer Brake Controls Description and Operation 3-6

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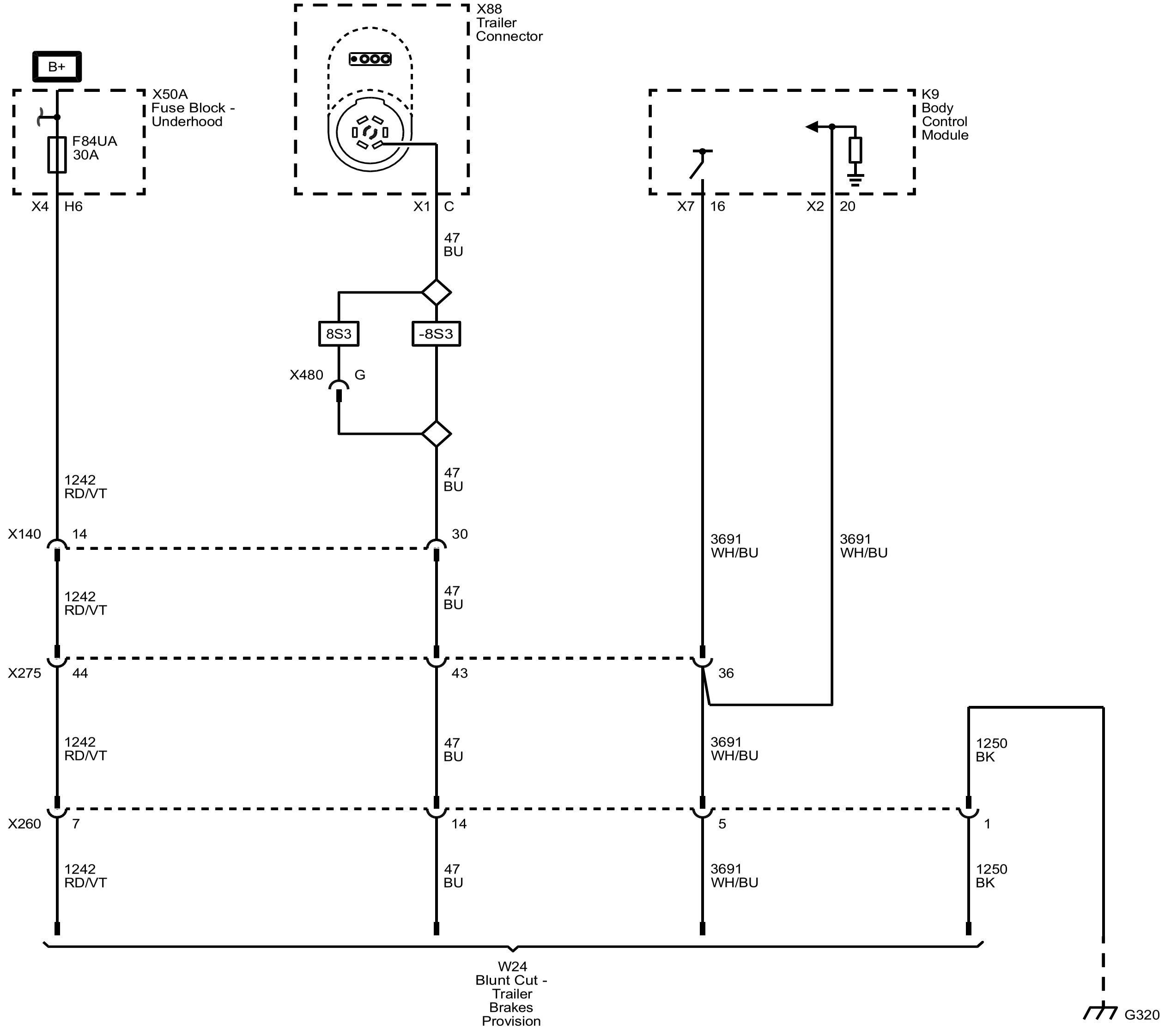
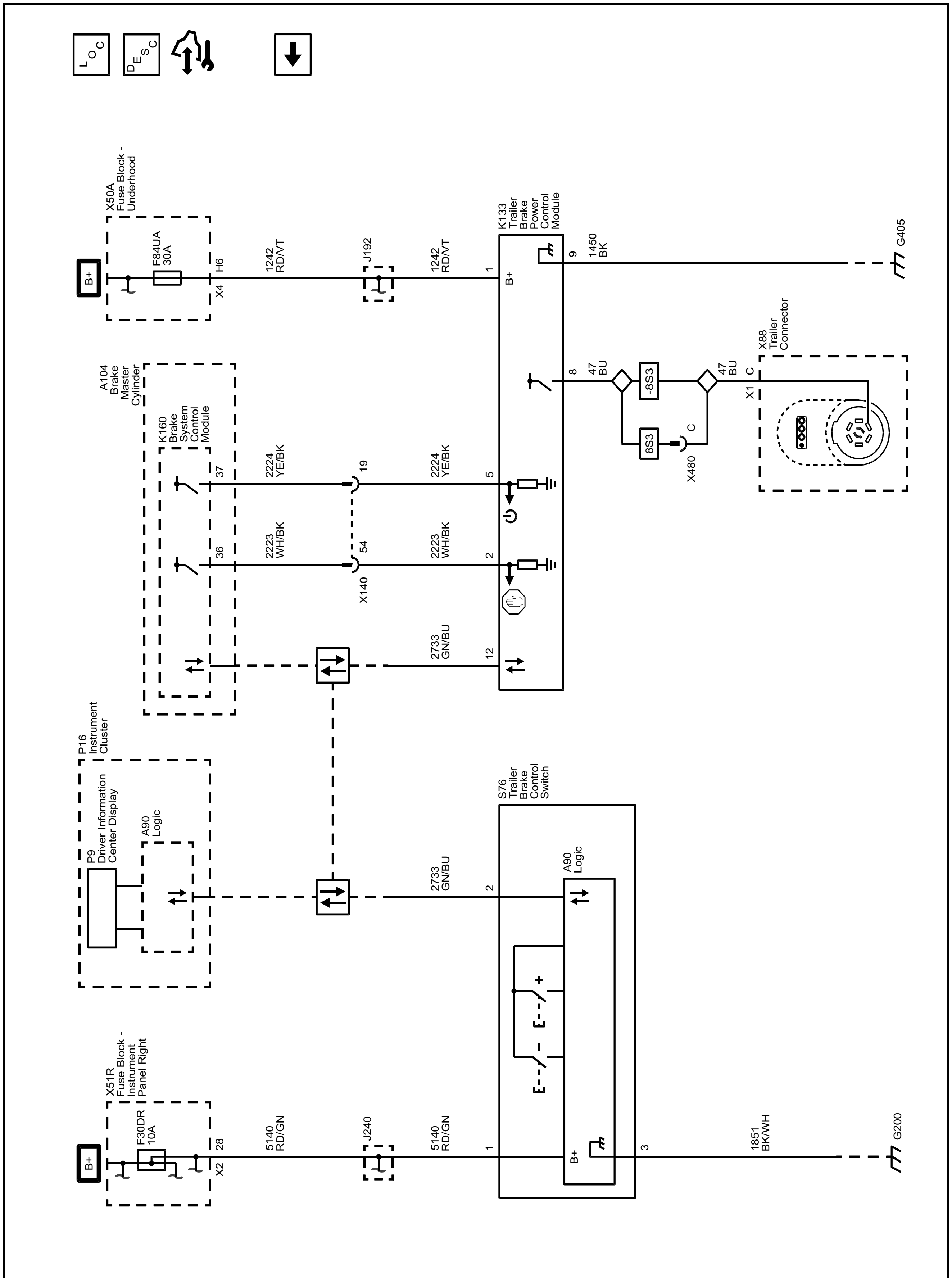
Trailer Brake Controls

Schematic and Routing Diagrams

Trailer Brake Control Schematics (Trailer Brake ((Z82/8S3)-JL1))


B+
X50A
Fuse Block -
Underhood
F84UA
30A
X4 H6
X88
Trailer
Connector
X1 C
47
BU
8S3
-8S3
X480 G
K9
Body
Control
Module
X7 16
X2 20
1242
RD/VT
X140 14
30
3691
WH/BU
X275 44
43
36
1250
BK
X260 7
14
5
1
W24
Blunt Cut -
Trailer
Brakes
Provision
G320
5255811

Trailer Brake Control Schematics (Trailer Brake (JL1))


5255813
X50A
Fuse Block - Underhood
B+
F84UA
30A
X4
H6
1242
RD/VT
J192
1242
RD/VT
1
B+
K133
Trailer
Brake
Power
Control
Module
9
1450
BK
G405
A104
Brake
Master
Cylinder
K160
Brake
System
Control
Module
37
2224
YE/BK
19
2224
YE/BK
5
36
2223
WH/BK
54
X140
2223
WH/BK
2
2733
GN/BU
12
8
47
BU
-8S3
8S3
C
X480
47
BU
C
X1
X88
Trailer
Connector
P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
S76
Trailer
Brake
Control
Switch
A90
Logic
2733
GN/BU
2
+
-
X51R
Fuse Block - Instrument
Panel Right
B+
F30DR
10A
X2
28
5140
RD/GN
J240
5140
RD/GN
1
B+
3
1851
BK/WH
G200

Description and Operation

Trailer Brake Controls Description and Operation

A trailer brake control system is used to control the amount of trailer braking power that is made available to trailers with brakes that require a controlled electrical output signal for actuation.

The power output to the trailer brakes is based on both the amount of braking being applied by the vehicle's brake system and on the type of trailer brakes detected.

The Trailer Brake Control System is compatible with two types of Trailer Brake Systems as listed below:

1. **Electric Brakes** A controlled electrical output signal energizes an electric-magnet/lever arm assembly that directly actuates the brake mechanism. The GDS name for this system is "Electromagnetic Brakes".
2. **Electric Over Hydraulic Brakes** A controlled electrical output signal energizes a remote, trailer mounted hydraulic pump to build brake pressure in a closed hydraulic system on the trailer. The hydraulic fluid pressure actuates the brake mechanism. The GDS name for this system is "Electrohydraulic Brakes".

Trailer Brake Output Versus Trailer Brake Type

- The trailer brake system characterizes the trailer brakes as either Electric Brake or Electric Over Hydraulic Brake automatically. This characterization may be affected by the number, type, and age of the trailer brake magnets, as well as any other devices installed on the trailer brakes (i.e. adapters for Electric Over Hydraulic brake functionality).
- The trailer brake system is fully operational with either characterization.
- Some features of the trailer brake system may be different based on the trailer brake type characterization. An example of this is at zero speed, where pressing the service brake pedal will produce output when the trailer brakes are characterized as Electric Brakes, but not when characterized as Electric Over Hydraulic Brakes.
- Sliding the manual trailer brake apply lever will produce output at zero speed for either characterization.

The user gain allows the driver to adjust the amount of trailer brake output to match the trailer load and road surface. The controller determines the desired trailer brake output and provides a control signal to the K133 Trailer Brake Power Control Module (TBPM). The K133 Trailer Brake Power Control Module amplifies the signal and provides the output required to activate the Electric or Electric Over Hydraulic trailer brakes.

The trailer brake control can support up to a maximum of four axles with electric trailer brakes (8 brake magnets).

Connecting a trailer that is not compatible with the trailer brake system may result in reduced or complete loss of trailer braking. There may be an increase in stopping distance or trailer instability which could result in personal injury or damage to the vehicle, trailer or other property. An aftermarket controller may be available for use with trailers with surge or air trailer brake systems.

To determine the type of brakes on your trailer and the availability of controllers, check with your trailer manufacturer or dealer. Do not power up an aftermarket controller with the factory brake controller at the same time.

The vehicle is equipped with the following trailer braking components:

- K160 Brake System Control Module
- K133 Trailer Brake Power Control Module
- S76 Trailer Brake Control Switch
- Manual Trailer Brake Apply
- Trailer Gain Adjustment
- Trailer Brake Driver Information Center Display

Brake System Control Module

The K160 Brake System Control Module (BSCM) is a serviceable GMLAN module. The brake system control module sends the low power commanded duty cycle signal to the trailer brake power control module. The trailer brake power control module amplifies the signal and provides an output that is required to drive the trailer brakes.

Trailer Brake Power Control Module

The K133 Trailer Brake Power Control Module (TBPM) is a solid state power switching module that supplies power to the trailer brakes at the input command duty cycle. Diagnostic messages are sent from the TBPM to the BSCM on a dedicated LIN bus.

Trailer Brake Control Panel

The S76 Trailer Brake Control Switch contains the trailer gain and manual apply switches. It is located in the vehicle center stack. Refer to the owner's manual for more information on the location. The control panel and switches allows you to adjust the amount of output, referred to as trailer gain, available to the Electric or Electric Over Hydraulic brakes. It also allows you to manually apply the trailer brakes. The trailer brake control switch is used along with the trailer brake display page on the driver information center to adjust and display power output to the trailer brakes.

Manual Trailer Brake Apply

The manual trailer brake apply lever is located on the S76 Trailer Brake Control Switch and is used to apply the trailer's Electric or Electric Over Hydraulic brakes independent of the vehicle's brakes. This lever is used in the trailer gain adjustment procedure to properly adjust the power output to the trailer brakes.

Sliding the lever to the left will apply only the trailer brakes. The power output to the trailer is indicated in the trailer brake display page in the Driver Information Center (DIC). If the vehicle's service brakes are applied while using the manual trailer brake apply lever, the trailer output power will be the greater of the two.

The trailer and the vehicle's brake lamps will come on when either the vehicle's braking or manual trailer brakes are applied.

Trailer Gain Adjustment

Trailer gain should be set for a specific trailering condition and must be adjusted any time vehicle loading, trailer loading or road surface conditions change. It is important to re-adjust trailer gain any time the tow vehicle, trailer loading or road surface conditions change or it you notice trailer wheel lock-up at any time while you are towing.

Setting the trailer gain properly is needed for the best trailer stopping performance. A trailer that is over-gained may result in locked trailer brakes. A trailer that is under-gained may result in not enough trailer braking. Both of these conditions may result in poor stopping and stability of the vehicle and trailer.

Trailer Gain Adjustment Procedure

- Adjust trailer gain in 0.5 step increments up to 10 gain setting by using the gain adjustment +/− buttons on the trailer brake control panel switch. Pressing and holding a gain button will cause the trailer gain to continuously increment or decrement. To turn the output to the trailer off, set the gain to zero.
- Drive the tow vehicle and trailer combination on a level surface representative of the towing condition and free of traffic at approximately 32–40 km/h (20–25 mph) and fully apply the manual trailer brake apply lever mechanism located on the trailer brake control panel switch. Adjusting the trailer gain at slower speeds may result in an incorrect gain setting.
- Adjust the trailer gain to just below the threshold of trailer wheel lock-up . Trailer wheel lock-up may not occur if towing a heavily loaded trailer. In this case, adjust the trailer gain to the highest allowable setting for the towing condition.

Hill Start Assist

The hill start assist allows the driver to launch the vehicle without a roll back when the driver is moving their foot from the brake pedal to the accelerator pedal. Refer to the hill start assist system in the anti-lock brake system description and operation document for more information.

Trailer Sway Control

The trailer sway control can detect the vehicle yaw instability, caused by an attached trailer. Refer to the trailer sway control system in the anti-lock brake system description and operation document for more information.

Driver Information Center Indicators and Messages

The following indicators are used to inform the driver of several different conditions:

Trailer Connected

This message will be briefly displayed when a trailer with Electric or Electric Over Hydraulic brakes is first connected to the vehicle. This message will automatically turn off in about ten seconds. The driver can also acknowledge this message before it automatically turns off.

Check Trailer Wiring

This message will be displayed if:

- The system detects that a trailer with Electric or Electric Over Hydraulic brakes is connected to the vehicle and then the trailer harness becomes disconnected from the vehicle.
- The trailer connection is recognized initially and then a disconnect occurs while the vehicle is stationary. This message will automatically turn off in about thirty seconds. This message will also turn off if the driver acknowledges this message off or if the trailer harness is reconnected.
- A disconnect of the trailer wiring harness occurs while the vehicle is moving. The Check Trailer Wiring message will continue until the ignition is turned off. The message will also turn off if the driver acknowledges this message off or it the trailer harness is re-connected or repairs are completed.
- There is an electrical fault in the wiring to the electric trailer brakes. The Check Trailer Wiring message will continue as long as there is an electrical fault in the trailer wiring. This message will also turn off if the driver acknowledges this message off.
- A poor connection at the 7–way connector may cause the Check Trailer Wiring message. Some aftermarket 7–way trailer side connector adapters or plugs may cause deformation or excessive wear to the vehicle’s trailer terminals. It is recommended that you use an OEM or Pollak heavy duty 7–way trailer side connector adapter.

Service Trailer Brake System

This message will be displayed when there is a problem with the trailer brake control system. The trailer brake system may not be fully functional, or may not be functioning at all. The trailer brake system is designed to provide trailer braking, if possible, even when faults prevent it from being fully functional. This reduced functionality includes:

1. Providing trailer braking when the master cylinder pressure or brake pedal switch are faulted.
2. Providing trailer braking when hill start assist and trailer sway control communication is faulted.
3. Providing trailer braking when certain manual trailer brake apply lever faults are present.

These conditions should be repaired to allow the trailer brake system to be fully functional.

Trailer Gain and Output Display

This display menu can be accessed by scrolling through the DIC menu, or any time the trailer gain +/− button is depressed, or the manual trailer brake apply lever is actuated. The trailer output is displayed from 0 to full output and indicates the output power provided to the trailer brakes, relative to the gain setting.

After the electrical connection is made to a trailer equipped with electric brakes or electric over hydraulic brakes, the TRAILER CONNECTED message will be displayed momentarily on the DIC. The Trailer Brake Display Page can be selected on the DIC showing TRAILER GAIN and OUTPUT, after all vehicle related service messages are acknowledged by the driver.

Depending on which instrument panel cluster is in the vehicle, the DIC may display dashed lines, a greyed out display, or it may be blank signifying a disconnected trailer or a trailer brake fault condition.

System Fault Detection Scan Tool Parameters

The scan tool has three parameters available that will help determine if a trailer brake system fault is located in the vehicle or in the trailer. The parameters associated with this diagnostic ability are listed below:

- Number of Trailer Brake Circuit Faults
- Number of Trailer Circuit Faults Suspected
- Trailer Circuit Faults Suspected/Trailer Brake Circuit Faults Ratio

The following table represents the area of the trailer brake system on the vehicle and on the customer's trailer that may be at fault based on a ratio of where a fault is detected. The ratios given in the table are the result of the Trailer Circuit Faults Suspected parameter divided by the Trailer Brake Circuit Faults Ratio parameter. The judgements are a guide as to where the majority of the faults are found, in the vehicle versus in the trailer.

Trailer Circuit Faults Suspected/Trailer Brake Circuit Faults Ratio

Ratio	Judgement
0%	Check vehicle
10%	Check vehicle
20%	Check vehicle
30%	Faults found in both the vehicle and the trailer. Refer to PIT 5509 and PIT 5311 for additional information on possible intermittent faults.
40%	
50%	
60%	
70%	
80%	Check trailer
90%	Check trailer
100%	Check trailer

Section 4

Driver Information and Entertainment

Image Display Cameras 4-3
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    Image Display Camera Schematics 4-4
  Description and Operation 4-10
    Rearview Camera Full Display Mirror Description and Operation 4-10
    Rear Vision Camera Description and Operation (UVC) 4-10
    Rear Vision Camera Description and Operation (UVB) 4-10
    Surround Vision Camera Description and Operation (UV2) 4-10
    Surround Vision Camera Description and Operation (Trailer Vision System (UVI/UVN/UVS)) 4-12

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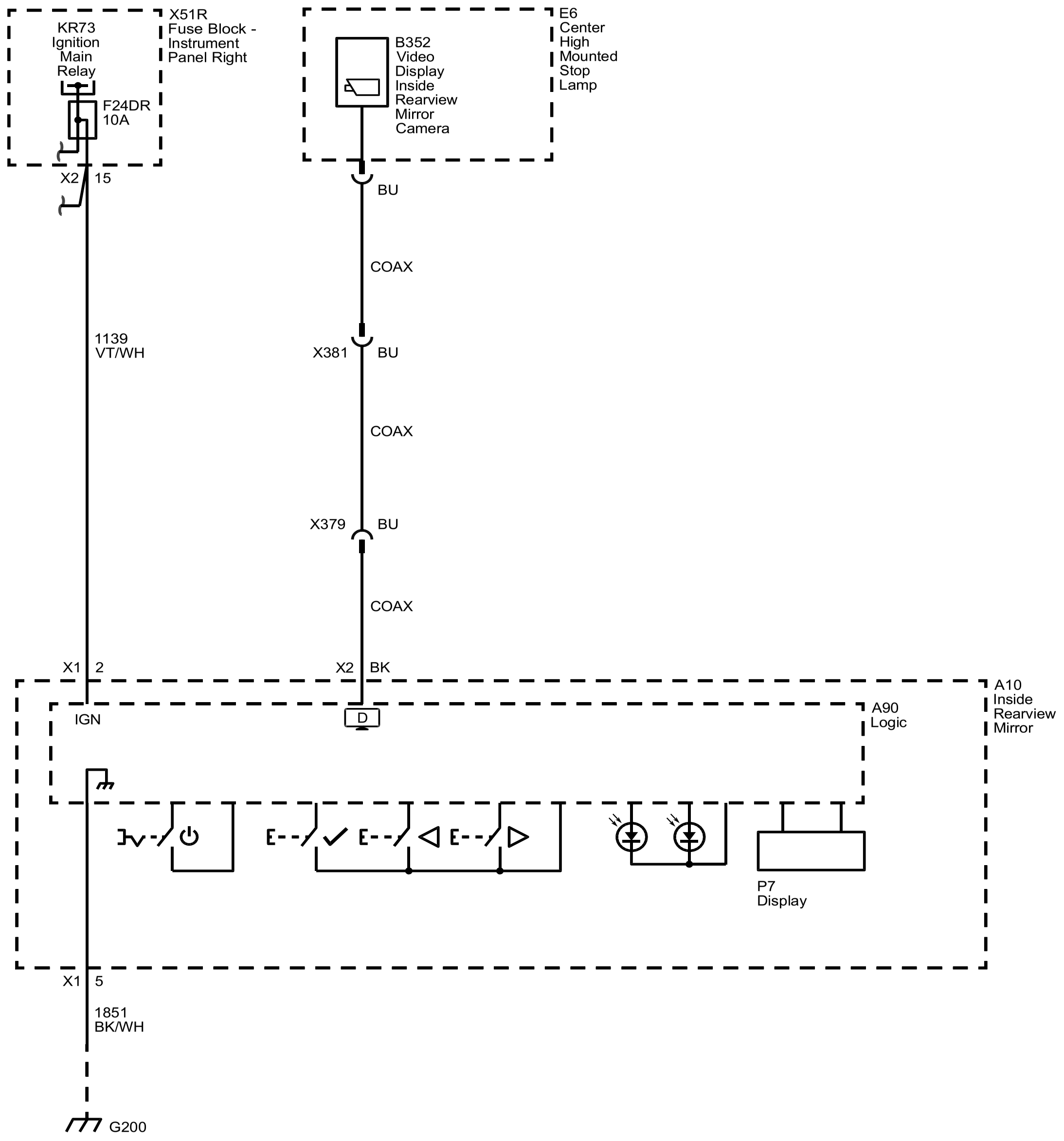
Image Display Cameras

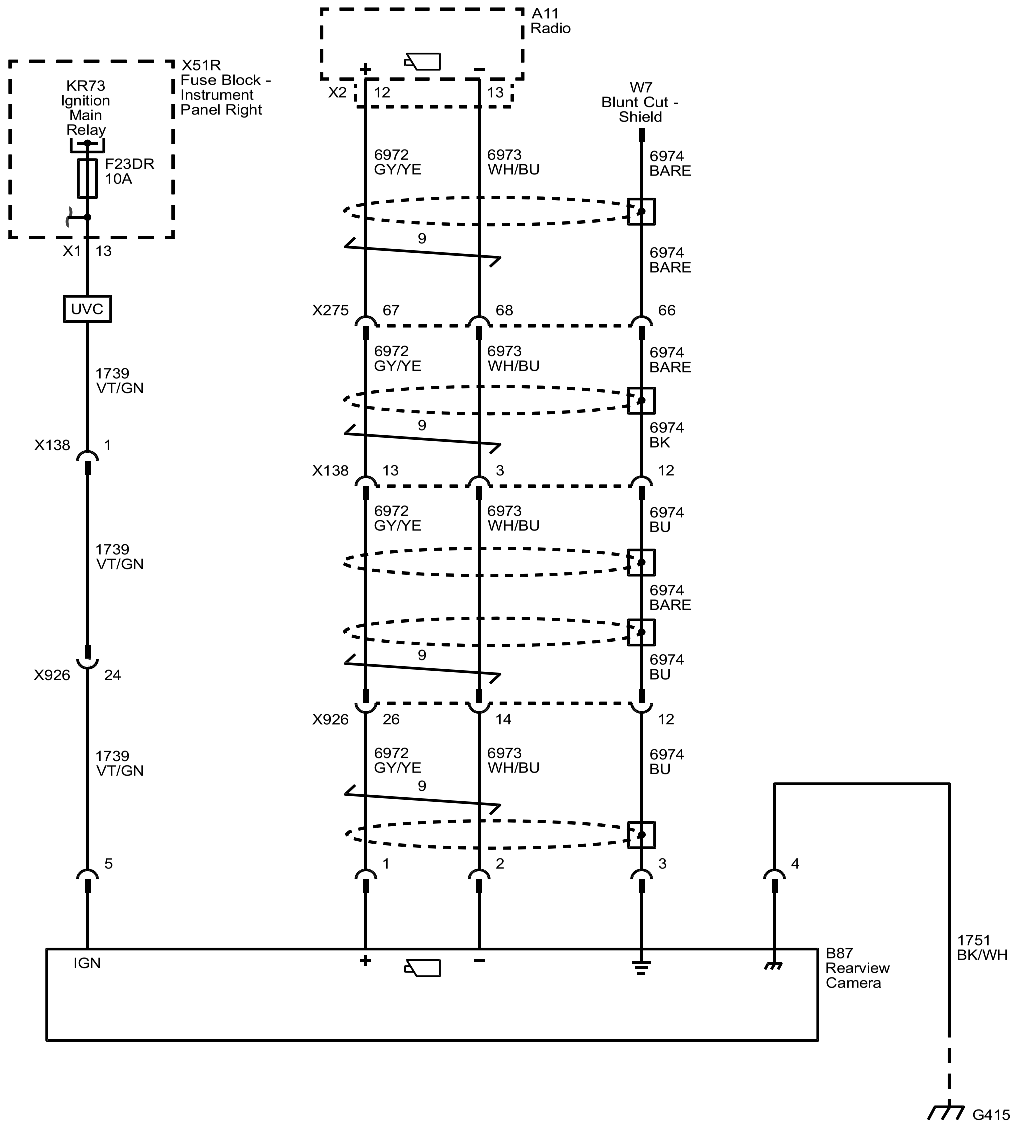
Schematic and Routing Diagrams

Image Display Camera Schematics (Rearview Camera (DRZ))


X51R
Fuse Block - Instrument Panel Right
KR73
Ignition
Main
Relay
F24DR
10A
X2 15
1139
VT/WH
X1 2
IGN
E6
Center
High
Mounted
Stop
Lamp
B352
Video
Display
Inside
Rearview
Mirror
Camera
BU
COAX
X381 BU
COAX
X379 BU
COAX
X2 BK
D
A10
Inside
Rearview
Mirror
A90
Logic
P7
Display
X1 5
1851
BK/WH
G200

5255901

Image Display Camera Schematics (Rearview Camera (UVC))


X51R
Fuse Block -
Instrument
Panel Right
KR73
Ignition
Main
Relay
F23DR
10A
X1 13
UVC
1739
VT/GN
X138 1
1739
VT/GN
X926 24
1739
VT/GN
5
A11
Radio
X2 12
13
6972
GY/YE
6973
WH/BU
W7
Blunt Cut -
Shield
6974
BARE
9
6974
BARE
X275 67
68
66
6972
GY/YE
6973
WH/BU
6974
BARE
9
6974
BK
X138 13
3
12
6972
GY/YE
6973
WH/BU
6974
BU
6974
BARE
9
6974
BU
X926 26
14
12
6972
GY/YE
6973
WH/BU
6974
BU
9
1
2
3
4
IGN
+
-
B87
Rearview
Camera
1751
BK/WH
G415

5255902

Image Display Camera Schematics (Rearview Camera (UVB))

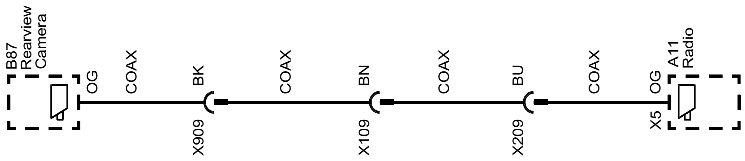
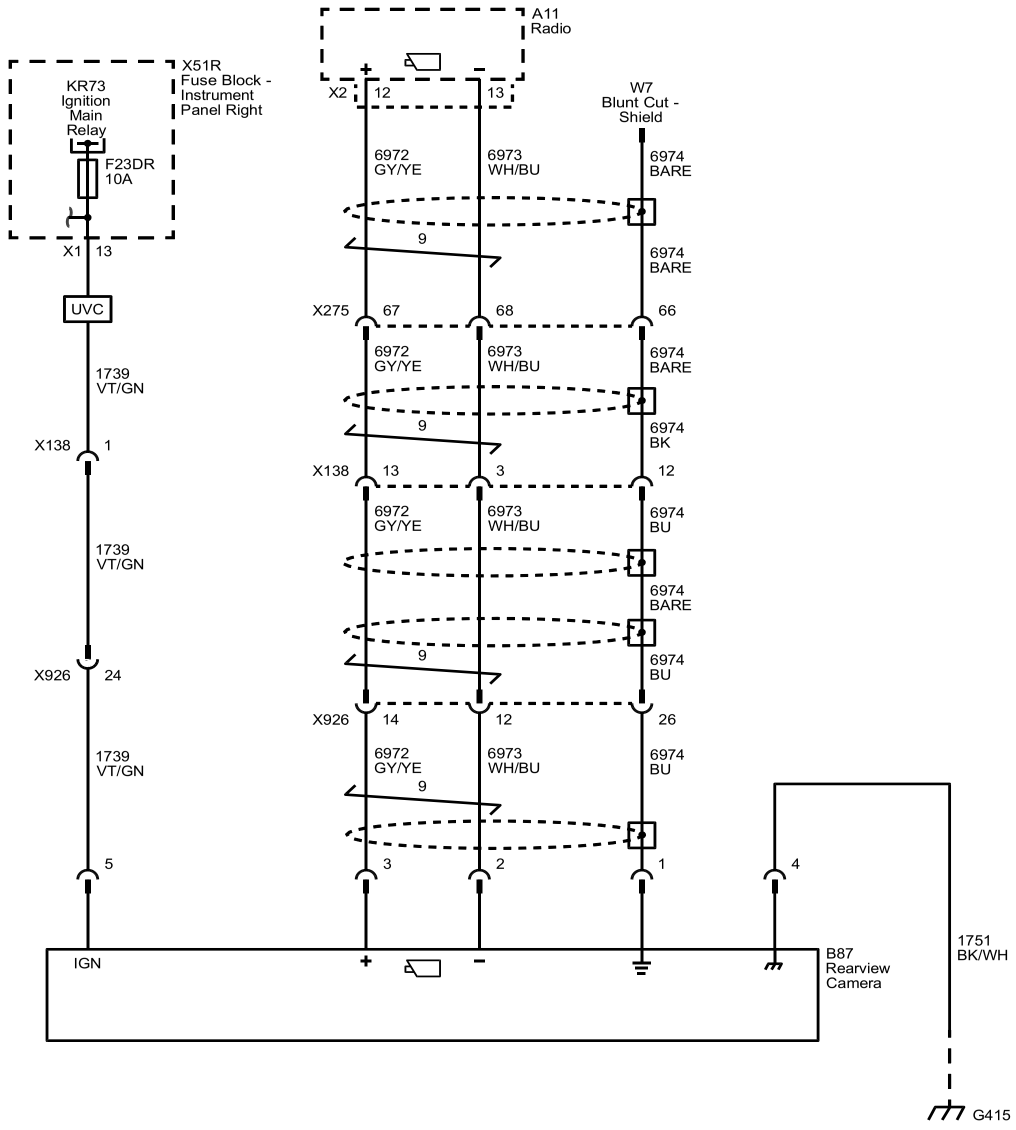
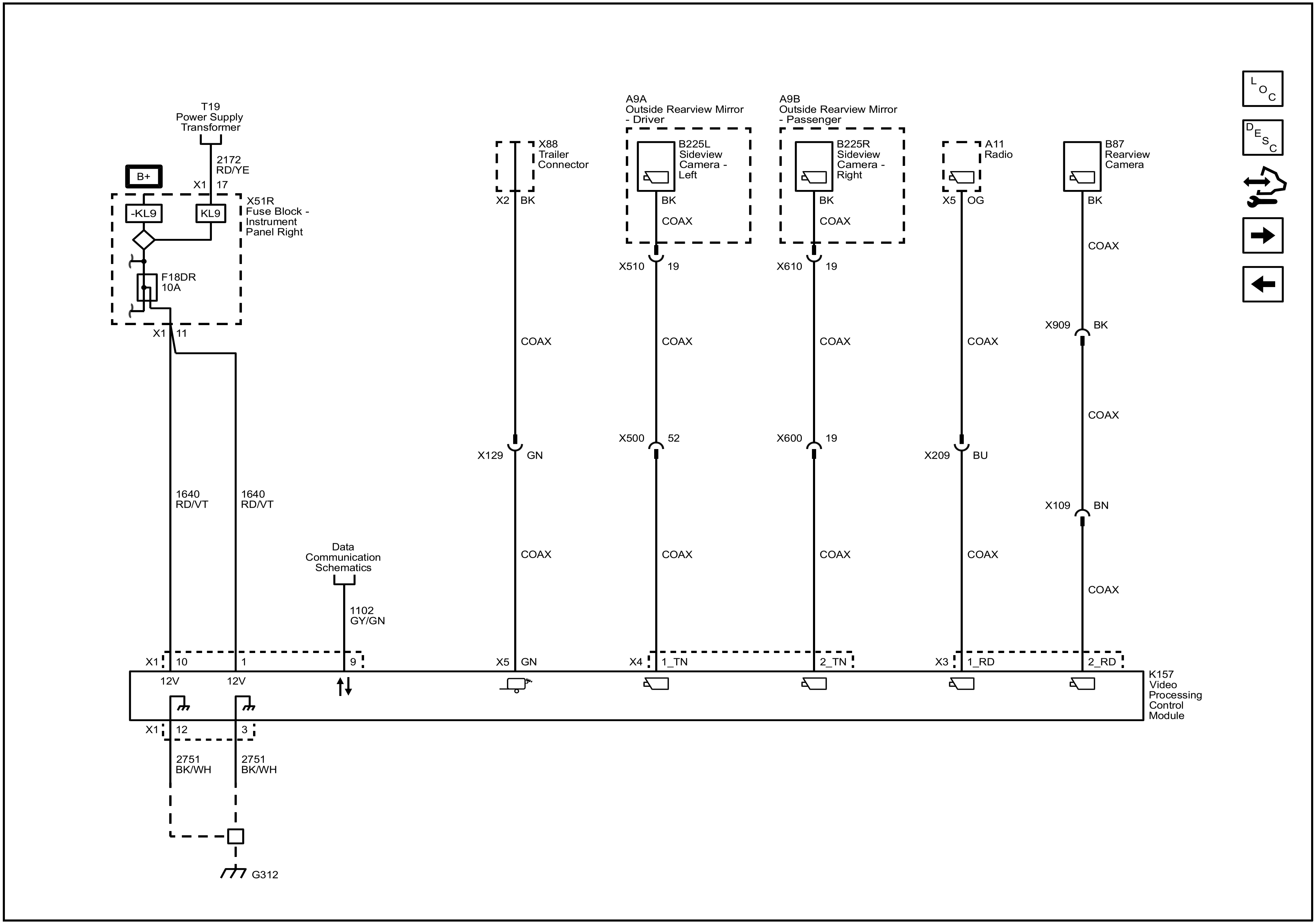

B87
Rearview
Camera
OG
COAX
BK
X909
COAX
BN
X109
COAX
BU
X209
COAX
OG
X5
A11
Radio
5255903

Image Display Camera Schematics (Rearview Camera (5N5))


X51R
Fuse Block - Instrument Panel Right
KR73
Ignition Main Relay
F23DR
10A
X1
13
UVC
1739
VT/GN
X138
1
1739
VT/GN
X926
24
1739
VT/GN
5
A11
Radio
X2
12
13
+
-
6972
GY/YE
6973
WH/BU
W7
Blunt Cut - Shield
6974
BARE
9
6974
BARE
X275
67
68
66
6972
GY/YE
6973
WH/BU
6974
BARE
9
6974
BK
X138
13
3
12
6972
GY/YE
6973
WH/BU
6974
BU
6974
BARE
9
6974
BU
X926
14
12
26
6972
GY/YE
6973
WH/BU
6974
BU
9
3
2
1
4
IGN
+
-
B87
Rearview Camera
1751
BK/WH
G415

5340552

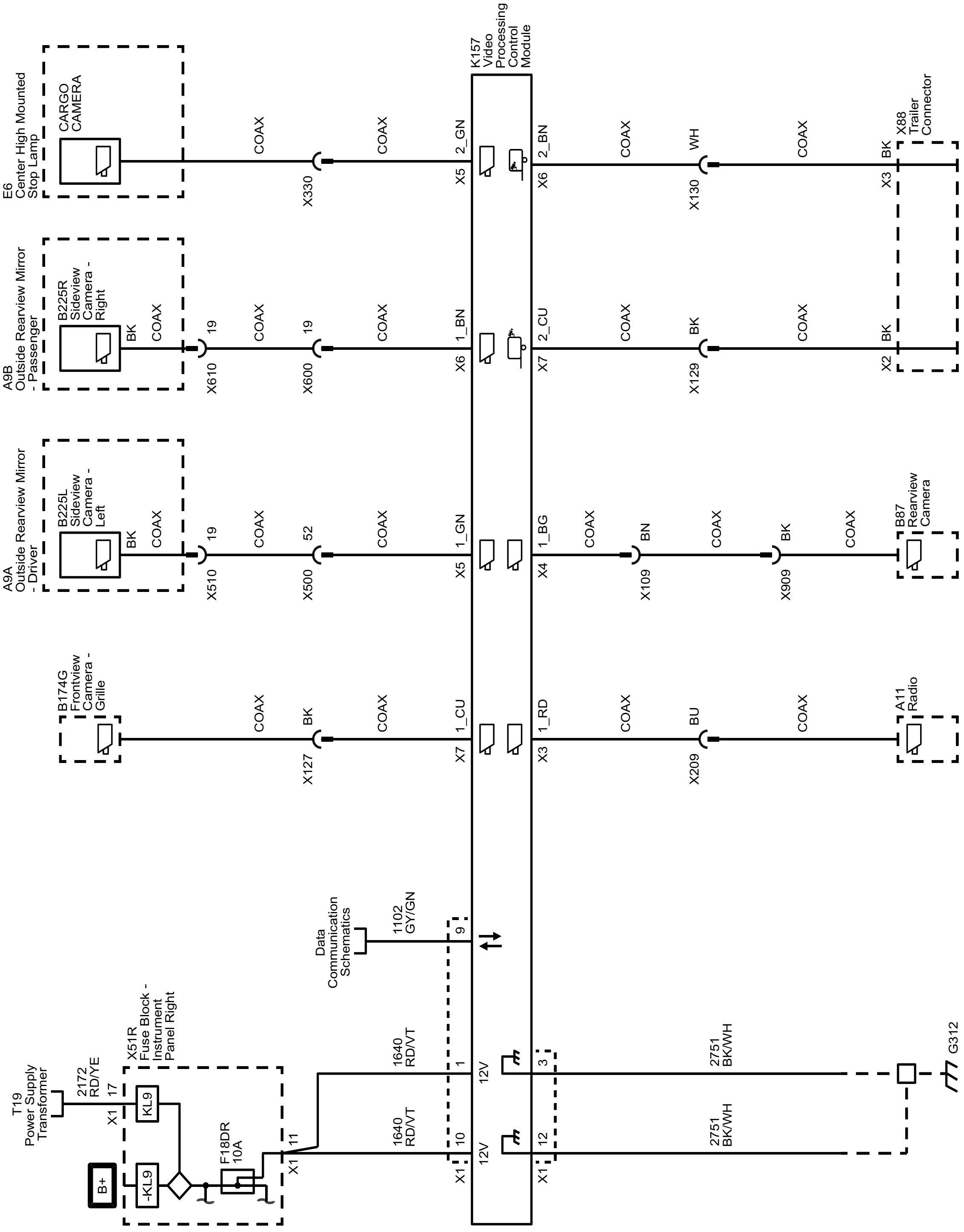
Image Display Camera Schematics (270 Degree Vision (UVI))


T19
Power Supply
Transformer
2172
RD/YE
X1 17
B+
-KL9
KL9
X51R
Fuse Block -
Instrument
Panel Right
F18DR
10A
X1 11
1640
RD/VT
1640
RD/VT
Data
Communication
Schematics
1102
GY/GN
X88
Trailer
Connector
X2 BK
COAX
X129 GN
COAX
A9A
Outside Rearview Mirror
- Driver
B225L
Sideview
Camera -
Left
BK
COAX
X510 19
COAX
X500 52
COAX
A9B
Outside Rearview Mirror
- Passenger
B225R
Sideview
Camera -
Right
BK
COAX
X610 19
COAX
X600 19
COAX
A11
Radio
X5 OG
COAX
X209 BU
COAX
B87
Rearview
Camera
BK
COAX
X909 BK
COAX
X109 BN
COAX
X1 10
1
9
X5 GN
X4 1_TN
2_TN
X3 1_RD
2_RD
12V
12V
K157
Video
Processing
Control
Module
X1 12
3
2751
BK/WH
2751
BK/WH
G312
L O C
D E S C

5255907

Image Display Camera Schematics (360 Degree Vision (UVS))

5299355


B+
T19 Power Supply Transformer
2172 RD/YE
X1 17
KL9
-KL9
X51R Fuse Block - Instrument Panel Right
F18DR 10A
X1 11
1640 RD/VT
1640 RD/VT
Data Communication Schematics
1102 GY/GN
9
X1 10
1
12V
12V
X1 12
3
2751 BK/WH
2751 BK/WH
G312
K157 Video Processing Control Module
B174G Frontview Camera - Grille
COAX
BK
X127
1_CU
X7
1_RD
X3
BU
X209
A11 Radio
A9A Outside Rearview Mirror - Driver
B225L Sideview Camera - Left
BK
19
X510
52
X500
1_GN
X5
1_BG
X4
BN
X109
X909
B87 Rearview Camera
A9B Outside Rearview Mirror - Passenger
B225R Sideview Camera - Right
X610
X600
1_BN
X6
2_CU
X7
X129
X2
E6 Center High Mounted Stop Lamp
CARGO CAMERA
X330
2_GN
X5
2_BN
X6
WH
X130
X3
X88 Trailer Connector

Description and Operation

Rearview Camera Full Display Mirror Description and Operation

If equipped, full display mirror provides a wider field of view than normally seen from the inside rearview mirror to assist when driving and changing lanes. When the tab under the inside rearview mirror is pulled rearward, a view of the area behind the vehicle displays on the mirror. The inside rearview camera full display mirror is connected to the outside rearview camera via a shielded coaxial cable.

When the tab under the inside rearview mirror is pulled rearward, a view of the area behind the vehicle displays on the mirror.

Adjust the rearview mirror for a clear view of the area behind the vehicle before turning on full display mirror. Use the three buttons on the bottom of the mirror to adjust the brightness, zoom, and tilt of the display. Make sure the light sensor is not covered when adjusting the brightness.

The inside rearview camera full display mirror may not work properly or display a clear image if:.

- It is dark.
- The sun or the beam of headlamps are shining directly into the camera lens.
- Ice, snow, mud, or anything else builds up on the camera lens. Clean the lens, rinse it with water, and wipe it with a soft cloth.

When the mirror detects that the camera is not sending a valid video signal, it “blue screens” with a “no video” decal for 3 seconds, then reverts back to the mirror.

Rear Vision Camera Description and Operation (UVC)

Rear Vision Camera System Operation

The rear vision camera system consists of a video camera located at the rear of the vehicle and the Rado.

When the transmission is placed into REVERSE, a signal indicates to the Radio that the vehicle is in reverse and image display is requested. The rear vision camera receives ignition voltage and a constant ground to power the camera. Video signal + and video signal – circuits carry the video image from the rear vision camera to the radio. Additionally, the video signal circuits are shielded to prevent any interference which may lead to a loss of video signal resolution and a degraded video image. The shield is provided a ground path by the rear vision camera.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

If a malfunction is detected in the system, Service Rear Vision Camera may be displayed on the Info Display Module as an indicator to the customer that a problem exists that requires service.

Rear Vision Camera Description and Operation (UVB)

Rear Vision Camera System Operation

The rear vision camera system consists of a video camera located at the rear of the vehicle and the Rado.

When the transmission is placed into REVERSE, a signal is sent to the Radio indicating that camera operation is requested. The rearview camera sends video information to the radio through a coax cable. The coax cable also provides power from the Radio to the rearview camera.

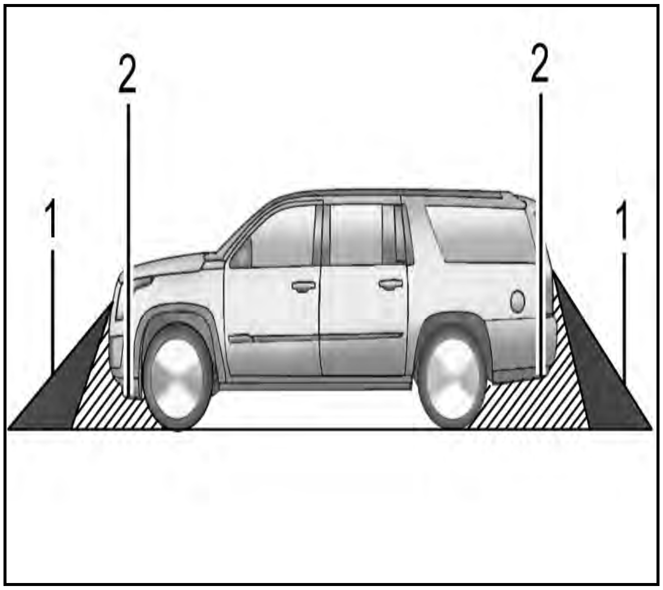
The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

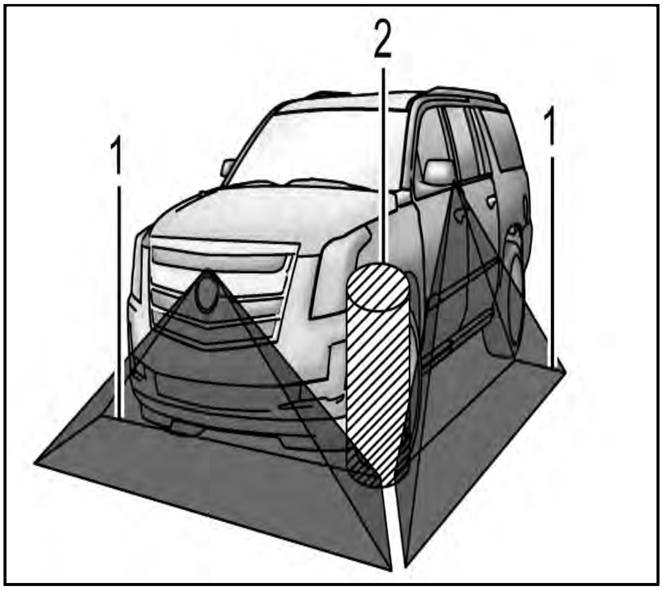
If a malfunction is detected in the system, Service Rear Vision Camera may be displayed on the Info Display Module as an indicator to the customer that a problem exists that requires service.

Surround Vision Camera Description and Operation (UV2)

Warning: The Surround Vision cameras have blind spots and will not display all objects near the corners of the vehicle. Folding outside mirrors that are out of position may not display surround view correctly. Always check around the vehicle when parking or backing.



1. View Displayed by the Surround Vision Camera
2. Area Not Shown



1. View Displayed by the Surround Vision Camera
2. Area Not Shown

The surround vision camera system consists of the following components:

- B87 Rearview Camera
- B174G Frontview Camera – Grille
- K157 Video Processing Control Module
- A11 Radio **OR** K74 Human Machine Interface Module
- B225L Sideview Camera – Left
- B225R Sideview Camera – Right
- X20 Memory Card Receptacle (with XVR)

When the vehicle is traveling at speeds slower than 6 mph (10kph) the video processing control module will power up the cameras and send a video signal to the radio or human machine interface module.

The following conditions may cause a degraded surround vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

Surround Vision displays an overhead view of the area surrounding the vehicle, along with the front or rear camera views in the center stack. The front camera is in the grille or near the front emblem, the side cameras are on the bottom of the outside rearview mirrors, and the rear vision camera is above the license plate.

Note: Images from the Sideview Cameras are only displayed when both front doors are properly closed.

Features of the Surround Vision System

- Rear camera (B87 Rearview Camera) view alongside overhead view is displayed in reverse
- Front camera (B174G Frontview Camera – Grille) view alongside overhead view is displayed after shifting out of reverse to Neutral or Drive
- Will display front view when front park assist object is within trigger range calibration value (30 cm (12 in) in a forward gear
- Image is removed from display when vehicle speed exceeds speed calibration (10kph/6 mph) or button press / screen touch

System Operation

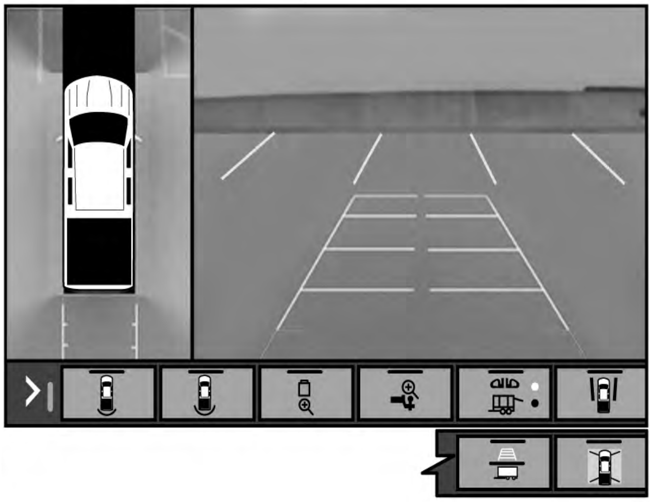
The video processing control module is connected to each camera via a shielded coaxial cable. The coaxial cable provides power for the camera and also carries the video image from the cameras to the video processing control module for processing. The video processing control module will then send the processed image output to infotainment system via another coaxial cable.

The video processing control module receives CAN information from Rear Park Assist object detection module and Steering Wheel angle from body control module during Reverse. A warning triangle may display during the 360 surround view screen if Rear Parking Assist has detected an object during a reverse. This triangle changes from amber to red and increases in size the closer the object. Also a dynamic guideline is displayed in Reverse to show the projected path of the vehicle.

If equipped, the video processing control module system may have a memory card receptacle (with XVR) located in the trunk. The memory card receptacle interfaces with the video processing control module via a USB cable. The memory card receptacle also receives fused battery voltage and ground from the video processing control module. The video processing control module uses the memory card as a mass storage device, similar to a USB storage device.

Surround Vision Camera Description and Operation (Trailer Vision System (UVI/UVN/UVS))

Warning: The Surround Vision cameras have blind spots and will not display all objects near the corners of the vehicle. Folding outside mirrors that are out of position may not display surround view correctly. Always check around the vehicle when parking or backing.



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The Surround Vision- Trailer Vision camera systems consists of the following components:

UVI (4 channel)

- K157 Video Processing Control Module
- A11 Radio
- P17 Info Display Module
- B87 Rearview Camera
- B225L Sideview Camera – Left
- B225R Sideview Camera – Right
- Trailer Camera (if customer installed)

UVI with UVN (4 channel)

- K157 Video Processing Control Module
- A11 Radio
- P17 Info Display Module
- B87 Rearview Camera
- B87CA Rearview Driver Information Camera- Cargo Area
- Trailer Rearview Camera (if customer installed)
- Trailer Interior Camera (if customer installed)

UVS with UVN (8 channel)

- K157 Video Processing Control Module
- A11 Radio
- P17 Info Display Module
- B87 Rearview Camera
- B225L Sideview Camera – Left
- B225R Sideview Camera – Right
- B174G Frontview Camera – Grille
- B87CA Rearview Driver Information Camera- Cargo Area
- Trailer Rearview Camera (if customer installed)
- Trailer Interior Camera (if customer installed)

Features of the Surround Vision– Trailer Vision System

- Rear camera (B87 Rearview Camera) alongside overhead view is displayed in reverse
- Trailer Rearview Camera (if equipped) and Trailer Interior Camera (if equipped) view are displayed when selected via the Trailering application on the Infotainment screen. These cameras can also be configured to create a Transparent Trailer View when configured accordingly.
- Cargo Bed Camera view (if equipped) is displayed when selected via the Trailering application on the Infotainment screen.
- Image is removed from display when vehicle speed exceeds speed calibration (10kph/6 mph) or button press / screen touch
- Hitch View (when selected) displays a rear view camera image with a single guideline, which aids in aligning the truck to the trailer. If the driver shifts into PARK while in Hitch View, the parking brake is engaged to keep the vehicle from rocking when the driver gets out of the vehicle to hitch the trailer.
- Surround Vision displays an overhead view of the area surrounding the vehicle, along with the rear camera views in the center stack. The side cameras are on the bottom of the outside rearview mirrors, and the rear vision camera is above the license plate, and a rearview trailer camera can be mounted on the rear of a trailer.

Note: Images from the Sideview Cameras are only displayed when both front doors are properly closed.

System Operation

The video processing control module is connected to each camera via a shielded coaxial cable. The coaxial cable provides power for the camera and also carries the video image from the cameras to the video processing control module for processing. The video processing control module will then send the processed image output to infotainment system via another coaxial cable.

The video processing control module receives CAN information from Rear Park Assist object detection module and Steering Wheel angle from body control module during Reverse. A warning triangle may display during the surround view screen if Rear Parking Assist has detected an object during a reverse. This triangle changes from amber to red and increases in size the closer the object. Also a dynamic guideline is displayed in Reverse to show the projected path of the vehicle.

When the vehicle is traveling at speeds slower than 6 mph (10kph) the video processing control module will power up the cameras and send a video signal to the radio.

The following conditions may cause a degraded surround vision camera image:

- Ice, snow, or mud has built up on any camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Body damage to the vehicle
- Extreme high temperatures or extreme temperature changes

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Section 5

Engine/Propulsion

12 V Starting and Charging 5-3
  Schematic and Routing Diagrams 5-3
    Starting and Charging Schematics 5-4
  Description and Operation 5-11
    Battery Description and Operation 5-11
    Charging System Description and Operation . . . 5-11
    Electrical Power Management Description and Operation 5-15
    Load Shed System Description and Operation 5-18
    Starting System Description and Operation 5-19
    Stop/Start System Description and Operation (KL9) 5-21

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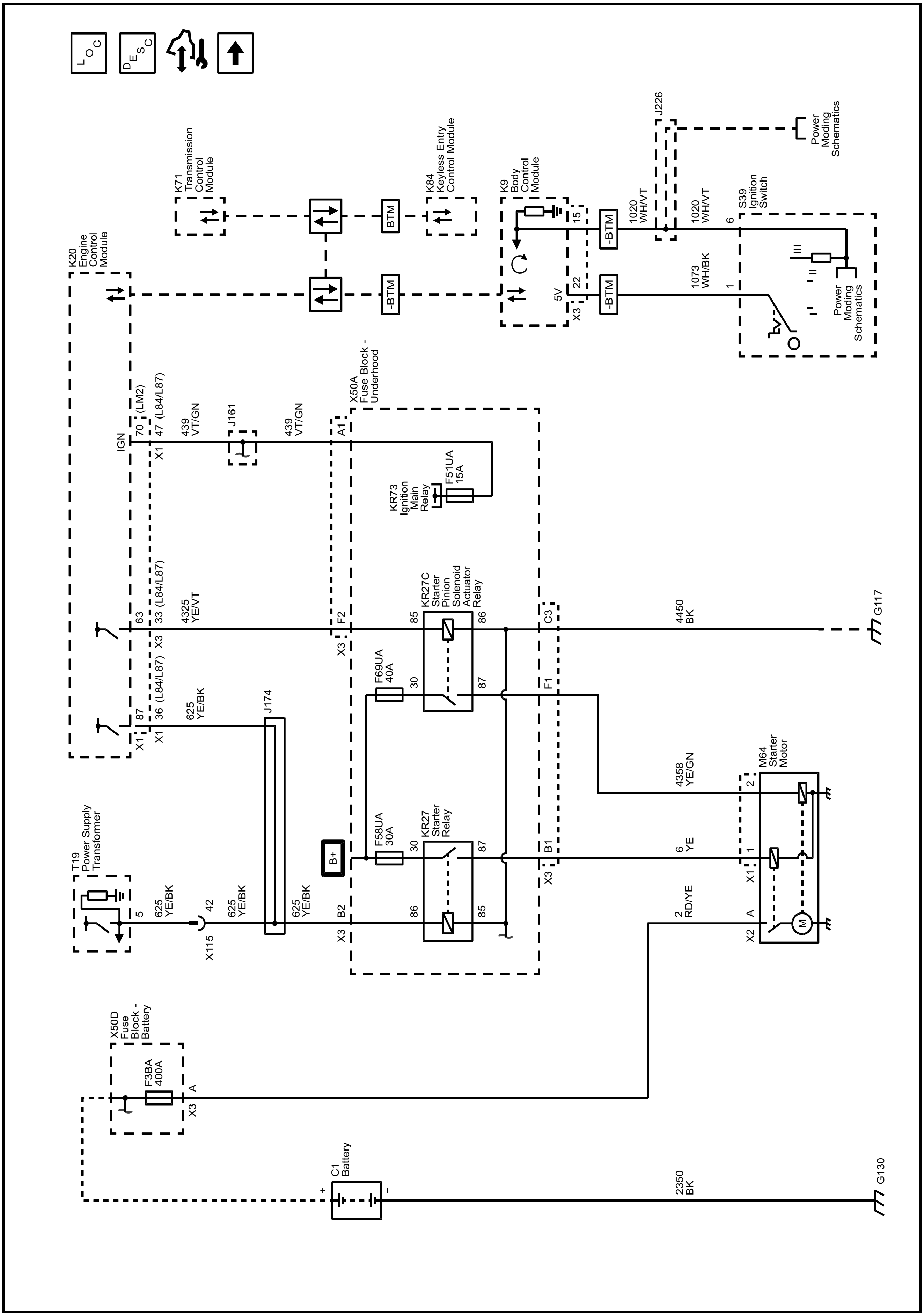
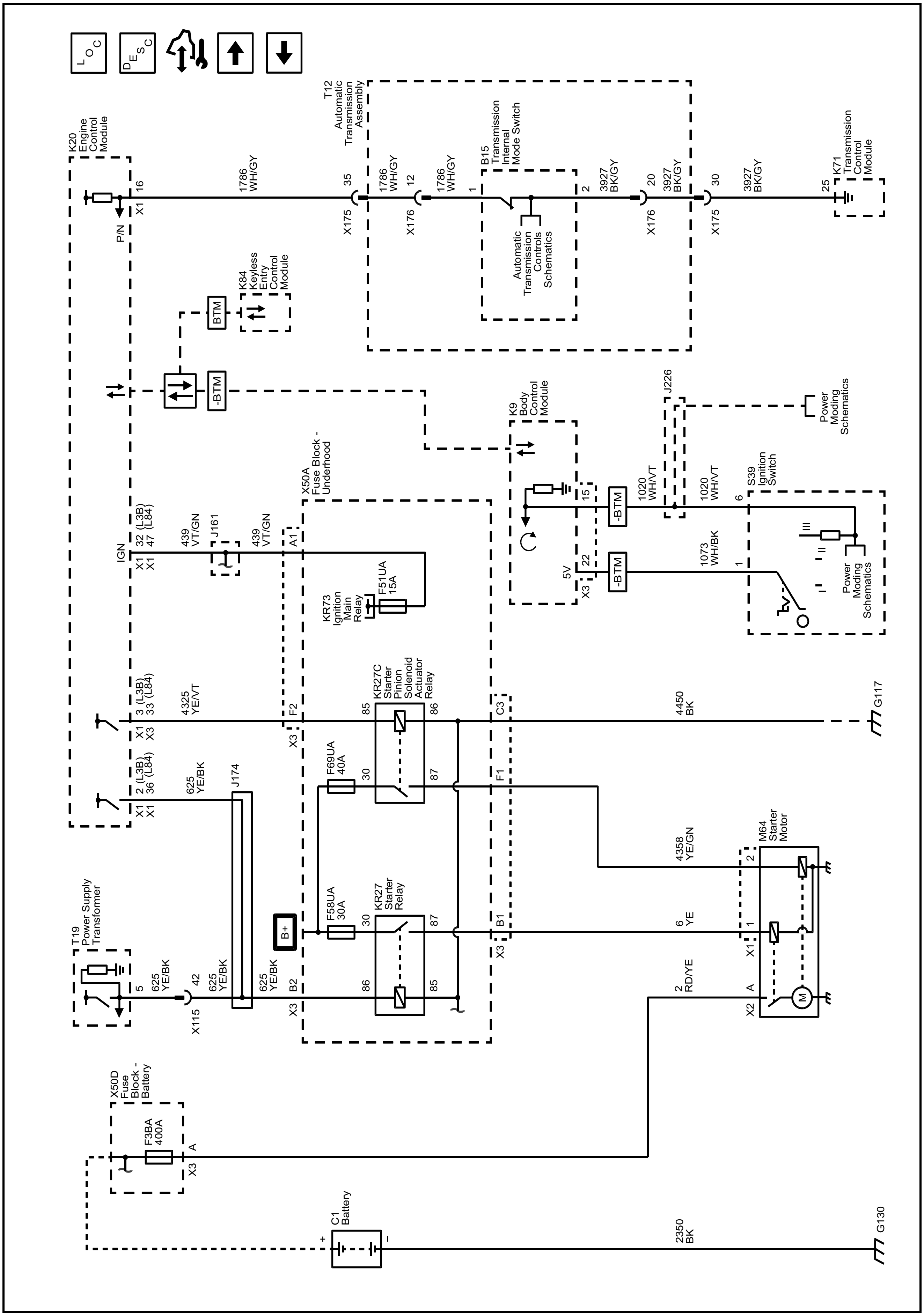
12 V Starting and Charging

Schematic and Routing Diagrams

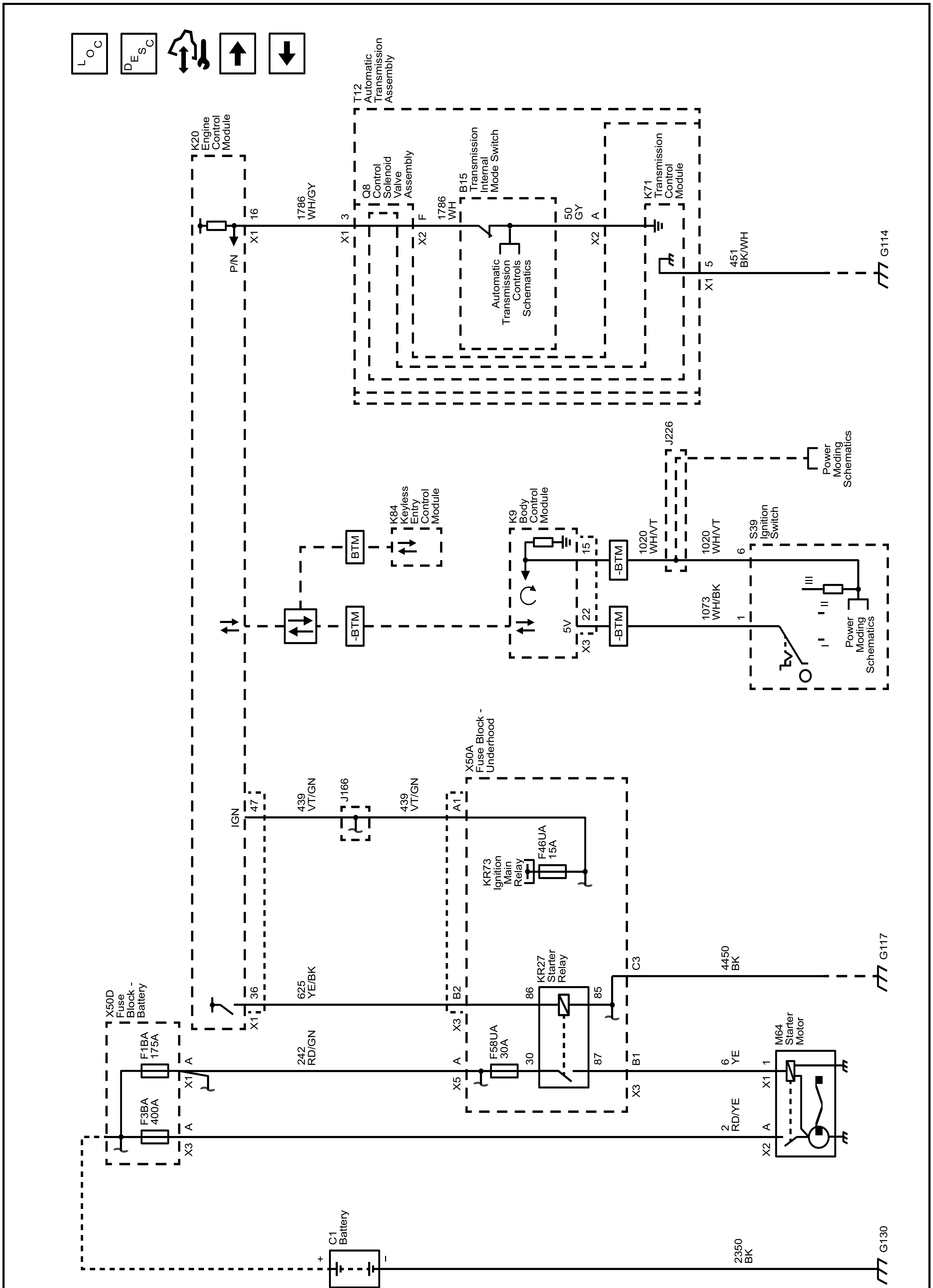
Starting and Charging Schematics (Starting (MQB))


5255911
LOC
DESC
K20 Engine Control Module
IGN
X1 70 (LM2)
X1 47 (L84/L87)
439 VT/GN
J161
439 VT/GN
A1
X50A Fuse Block - Underhood
KR73 Ignition Main Relay
F51UA 15A
X3 63
X3 33 (L84/L87)
4325 YE/VT
F2
X3
X1 87
X1 36 (L84/L87)
625 YE/BK
J174
F69UA 40A
85
30
87
86
KR27C Starter Pinion Solenoid Actuator Relay
C3
F1
4450 BK
G117
T19 Power Supply Transformer
5
625 YE/BK
42
X115
625 YE/BK
625 YE/BK
B2
X3
B+
F58UA 30A
KR27 Starter Relay
30
86
87
85
B1
X3
4358 YE/GN
6 YE
2 RD/YE
M64 Starter Motor
2
1
X1
A
X2
M
X50D Fuse Block - Battery
F3BA 400A
A
X3
C1 Battery
+
-
2350 BK
G130
K71 Transmission Control Module
BTM
K84 Keyless Entry Control Module
-BTM
K9 Body Control Module
5V
15
22
X3
-BTM
-BTM
1020 WH/VT
J226
1020 WH/VT
1073 WH/BK
6
1
S39 Ignition Switch
III
II
I
Power Moding Schematics
Power Moding Schematics

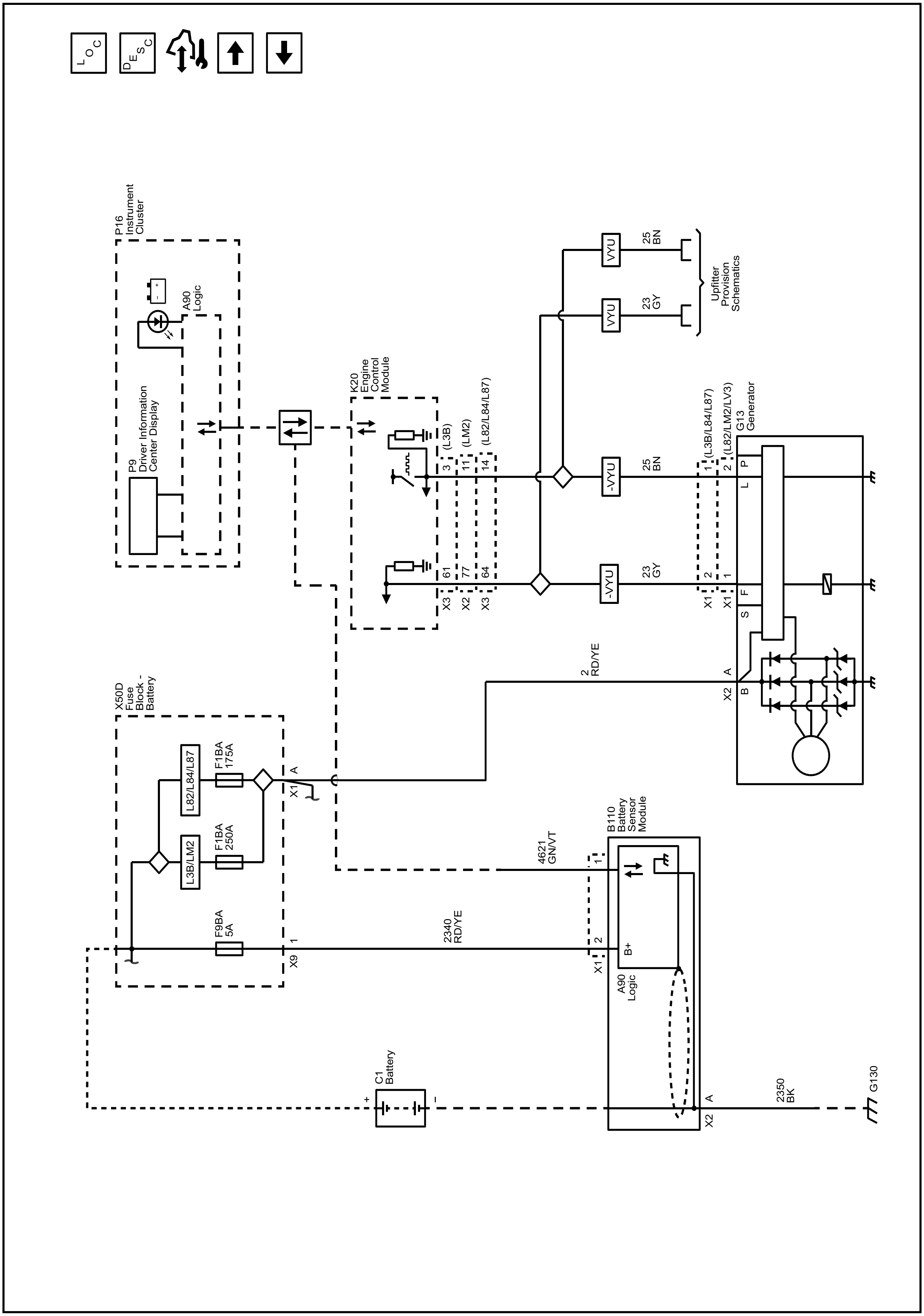
Starting and Charging Schematics (Starting (MQE))


5255912
L O C
D E S C
K20 Engine Control Module
X1 16
P/N
IGN
X1 32 (L3B)
X1 47 (L84)
X1 3 (L3B)
X3 33 (L84)
X1 2 (L3B)
X1 36 (L84)
1786 WH/GY
35 X175
12 X176
1
B15 Transmission Internal Mode Switch
2
3927 BK/GY
20 X176
30 X175
25
K71 Transmission Control Module
T12 Automatic Transmission Assembly
Automatic Transmission Controls Schematics
BTM
-BTM
K84 Keyless Entry Control Module
K9 Body Control Module
15
22
5V
X3
1020 WH/VT
J226
Power Moding Schematics
S39 Ignition Switch
6
1073 WH/BK
1
III
II
I
Power Moding Schematics
439 VT/GN
J161
A1
X50A Fuse Block - Underhood
KR73 Ignition Main Relay
F51UA 15A
4325 YE/VT
F2
X3
85
KR27C Starter Pinion Solenoid Actuator Relay
86
C3
4450 BK
G117
625 YE/BK
J174
F69UA 40A
30
87
F1
4358 YE/GN
M64 Starter Motor
2
T19 Power Supply Transformer
5
42
X115
B2
X3
B+
F58UA 30A
KR27 Starter Relay
30
87
86
85
B1
X3
6 YE
X1 1
2 RD/YE
X2 A
M
X50D Fuse Block - Battery
F3BA 400A
A
X3
C1 Battery
+
-
2350 BK
G130

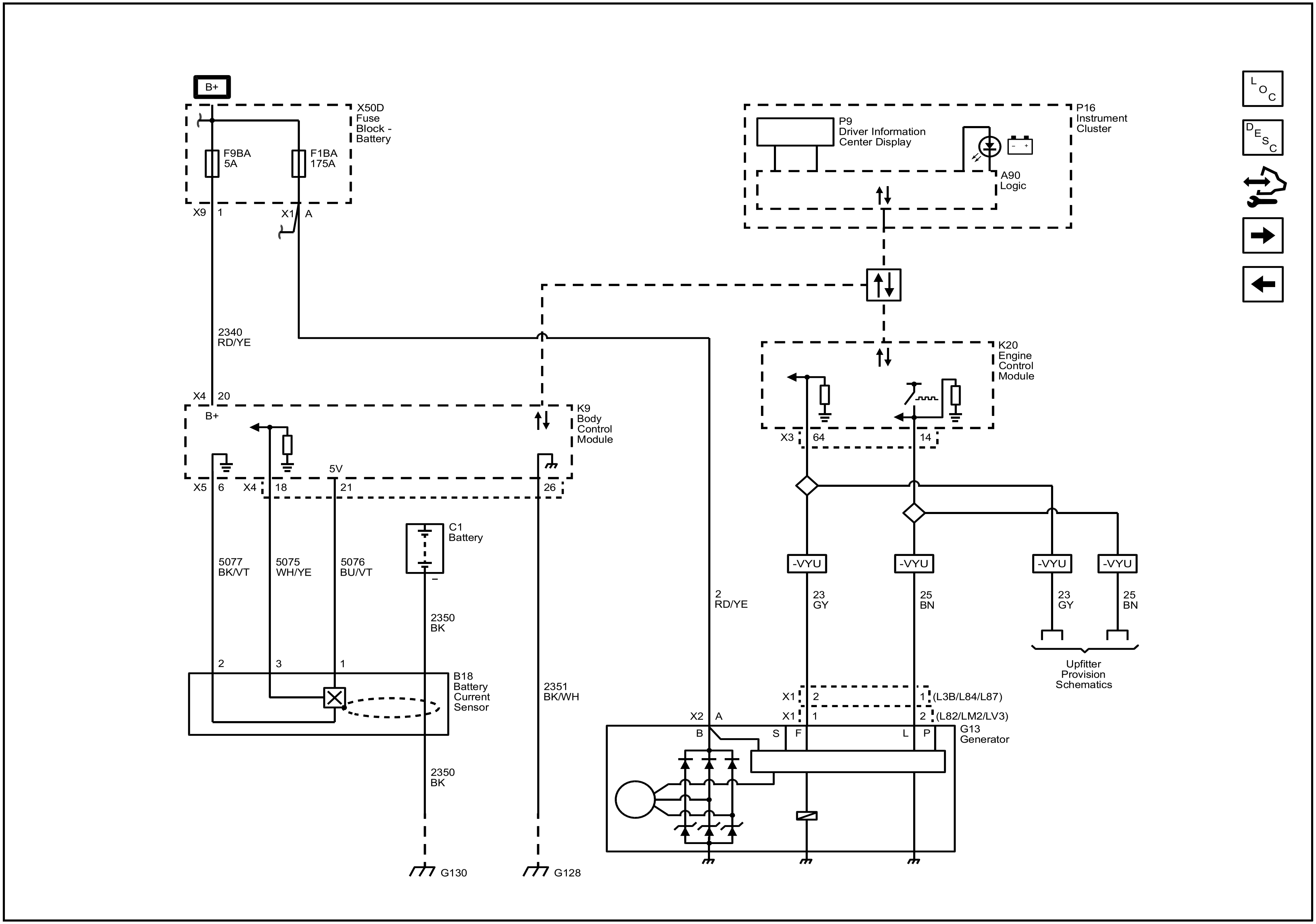
Starting and Charging Schematics (Starting (MYC))


5255913
LOC
DESC
K20 Engine Control Module
T12 Automatic Transmission Assembly
Q8 Control Solenoid Valve Assembly
B15 Transmission Internal Mode Switch
K71 Transmission Control Module
X1 16
P/N
1786 WH/GY
X1 3
X2 F
1786 WH
50 GY
X2 A
X1 5
451 BK/WH
G114
Automatic Transmission Controls Schematics
J226
Power Moding Schematics
K84 Keyless Entry Control Module
BTM
-BTM
-BTM
K9 Body Control Module
15
22
5V
X3
-BTM
-BTM
1020 WH/VT
1020 WH/VT
1073 WH/BK
S39 Ignition Switch
6
1
III
II
I
Power Moding Schematics
X50A Fuse Block - Underhood
IGN
47
439 VT/GN
J166
439 VT/GN
A1
KR73 Ignition Main Relay
F46UA 15A
X50D Fuse Block - Battery
F1BA 175A
F3BA 400A
A
X1
A
X3
X1 36
625 YE/BK
X3 B2
KR27 Starter Relay
86
85
C3
4450 BK
G117
242 RD/GN
X5 A
F58UA 30A
30
87
X3 B1
6 YE
X1 1
M64 Starter Motor
2 RD/YE
X2 A
C1 Battery
+
-
2350 BK
G130

Starting and Charging Schematics (Charging (KL9))

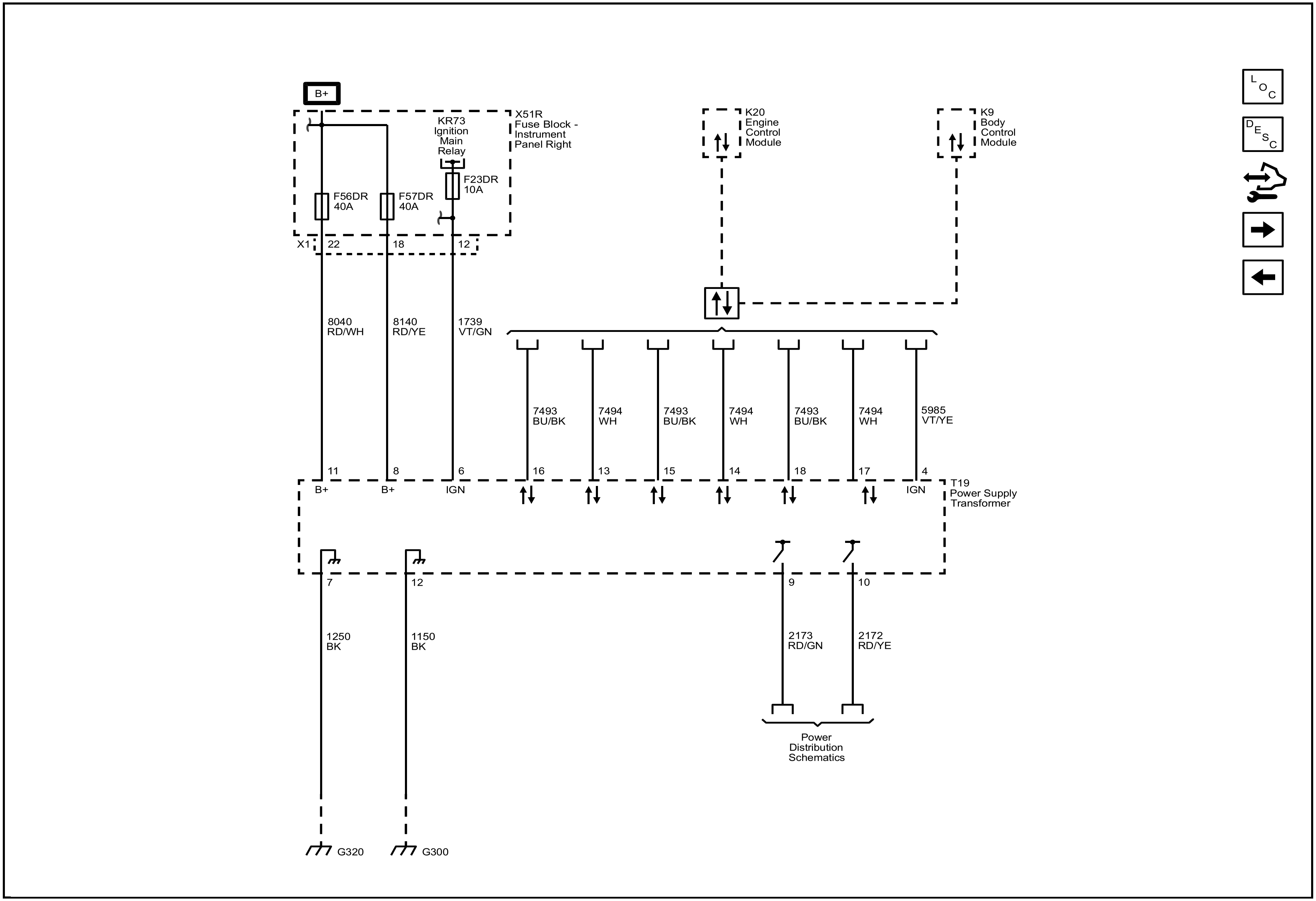

5255915
LOC
DESC
P16 Instrument Cluster
A90 Logic
P9 Driver Information Center Display
K20 Engine Control Module
(L3B)
(LM2)
(L82/L84/L87)
X3 3
X2 11
X3 14
X3 61
X2 77
X3 64
VYU
VYU
25 BN
23 GY
Upfitter Provision Schematics
-VYU
-VYU
25 BN
23 GY
(L3B/L84/L87)
(L82/LM2/LV3)
X1 1
X1 2
X1 2
X1 1
G13 Generator
P
L
F
S
A
B
X2
2 RD/YE
X50D Fuse Block - Battery
L82/L84/L87
F1BA 175A
L3B/LM2
F1BA 250A
F9BA 5A
X1 A
X9 1
4621 GN/VT
2340 RD/YE
B110 Battery Sensor Module
X1 1
X1 2
B+
A90 Logic
C1 Battery
+
–
X2 A
2350 BK
G130

Starting and Charging Schematics (Charging (-KL9))

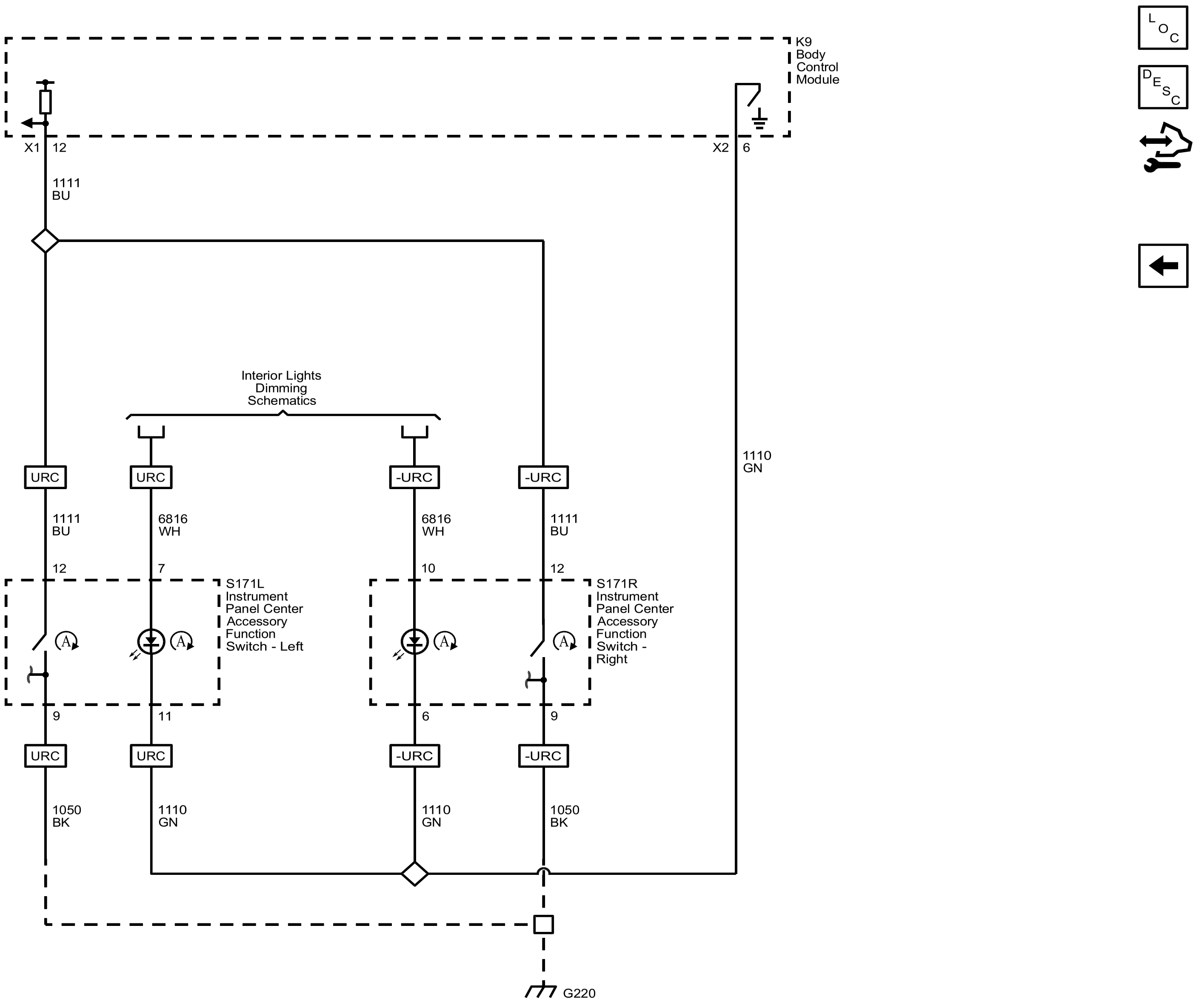

B+
X50D
Fuse
Block -
Battery
F9BA
5A
F1BA
175A
X9 1
X1 A
2340
RD/YE
X4 20
B+
K9
Body
Control
Module
X5 6
X4 18
5V
21
26
5077
BK/VT
5075
WH/YE
5076
BU/VT
C1
Battery
2350
BK
2 3 1
B18
Battery
Current
Sensor
2350
BK
2351
BK/WH
G130
G128
P9
Driver Information
Center Display
P16
Instrument
Cluster
A90
Logic
K20
Engine
Control
Module
X3 64
14
-VYU
-VYU
-VYU
-VYU
23
GY
25
BN
23
GY
25
BN
Upfitter
Provision
Schematics
2
RD/YE
X1 2
1 (L3B/L84/L87)
X1 1
2 (L82/LM2/LV3)
X2 A
B
S F
L P
G13
Generator
L O C
D E S C

5255916

Starting and Charging Schematics (Power Supply Transformer Power, Ground, Serial Data, and Subsystem References (KL9))


B+
X51R
Fuse Block - Instrument Panel Right
KR73
Ignition
Main
Relay
F56DR
40A
F57DR
40A
F23DR
10A
X1
22
18
12
8040
RD/WH
8140
RD/YE
1739
VT/GN
K20
Engine
Control
Module
K9
Body
Control
Module
7493
BU/BK
7494
WH
7493
BU/BK
7494
WH
7493
BU/BK
7494
WH
5985
VT/YE
11
8
6
16
13
15
14
18
17
4
B+
B+
IGN
IGN
T19
Power Supply
Transformer
7
12
9
10
1250
BK
1150
BK
2173
RD/GN
2172
RD/YE
Power
Distribution
Schematics
G320
G300
L O C
D E S C
5255919

Starting and Charging Schematics (Stop/Start Controls (KL9))



K9
Body
Control
Module
X1 12
X2 6
1111
BU
1110
GN
Interior Lights
Dimming
Schematics
URC
-URC
6816
WH
12
7
10
S171L
Instrument
Panel Center
Accessory
Function
Switch - Left
S171R
Instrument
Panel Center
Accessory
Function
Switch -
Right
9
11
6
1050
BK
G220

5255921

Description and Operation

Battery Description and Operation

Warning: Batteries produce explosive gases, contain corrosive acid, and supply levels of electrical current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- ***Always shield your eyes and avoid leaning over the battery whenever possible.***
- ***Do not expose the battery to open flames or sparks.***
- ***Do not allow the battery electrolyte to contact the eyes or the skin. Flush immediately and thoroughly any contacted areas with water and get medical help.***
- ***Follow each step of the jump starting procedure in order.***
- ***Treat both the booster and the discharged batteries carefully when using the jumper cables.***

Batteries that are no longer wanted must be disposed of by an approved battery recycler and must never be thrown in the trash or sent to a landfill.

Batteries that are not part of the vehicle itself, not the battery under the hood, must only be transported on public streets for business purposes via approved hazardous material transportation procedures.

Battery storage, charging and testing facilities in repair shops must meet various requirements for ventilation, safety equipment, material segregation, etc.

The maintenance free battery is standard. There are no vent plugs in the cover. The battery is completely sealed except for 2 small vent holes in the side. These vent holes allow the small amount of gas that is produced in the battery to escape.

The battery has 3 functions as a major source of energy:

- Engine cranking
- Voltage stabilizer
- Alternate source of energy with generator overload

Battery Low Start Vehicle Message

The body control module (BCM) monitors battery positive voltage to determine battery state of charge. If one or more of the BCM battery positive voltage terminals measure less than approximately 11.6V compared to the BCM ground circuits, this message will display and four chimes may sound. Start the vehicle immediately. If the vehicle is not started and the battery continues to discharge, the climate controls, heated seats, and audio systems will shut off and the vehicle may require a jump start. These systems will function again after the vehicle is started.

Battery Ratings

A battery has 2 ratings:

- Cold cranking amperage
- Amperage hours

When a battery is replaced use a battery with similar ratings. See battery specification label on the original battery.

Amperage Hours

The amperage hour rating tells you how much amperage is available when discharged evenly over a 20 hour period. The amperage hour rating is cumulative, so in order to know how many constant amperage the battery will output for 20 h, you have to divide the amperage hour rating by 20. Example: If a battery has an amperage hour rating of 74, dividing by 20 = 3.75. Such a battery can carry a 3.75 A load for 20 hours before dropping to 10.5 V. (10.5 V is the fully discharged level, at which point the battery needs to be recharged.) A battery with an amperage hour rating of 55 will carry a 2.75 A load for 20 hours before dropping to 10.5 V.

Cold Cranking Amperage

The cold cranking amperage is an indication of the ability of the battery to crank the engine at cold temperatures. The cold cranking amperage rating is the minimum amperage the battery must maintain for 30 seconds at −18°C (0°F) while maintaining at least 7.2 V. See battery label for the cold cranking amperage rating of this battery.

Charging System Description and Operation

Electrical Power Management Overview

The electrical power management system is designed to monitor and control the charging system and send diagnostic messages to alert the driver of possible problems with the battery and generator. This electrical power management system primarily utilizes existing on-board computer capability to maximize the effectiveness of the generator, to manage the load, improve battery state-of-charge and life, and minimize the system's impact on fuel economy. The electrical power management system performs 3 functions:

- Monitor the battery voltage and estimate the battery condition
- Take corrective actions by boosting idle speeds, and adjusting the regulated voltage
- Perform diagnostics and driver notification

The battery condition is estimated during ignition/vehicle off and during ignition/vehicle on. During ignition/vehicle off the state-of-charge of the battery is determined by measuring the open-circuit voltage. The state-of-charge is a function of the acid concentration and the internal resistance of the battery, and is estimated by reading the battery open circuit voltage when the battery has been at rest for several hours.

Any time the ignition/vehicle is on, the vehicle algorithm continuously estimates battery state-of-charge based on adjusted net amp hours, battery capacity, initial state-of-charge, and calculated temperature.

While the engine is running, the battery degree of discharge is primarily determined by the integrated battery current sensor, to obtain net amp hours.

In addition, the electrical power management function is designed to perform regulated voltage control to improve battery state-of-charge, battery life, and fuel economy. This is accomplished by using knowledge of the battery state-of-charge and temperature to set the charging voltage to an optimum battery voltage level for recharging without detriment to battery life.

Charging System Components

Generator

The engine drive belt drives the generator. When the rotor is spun, it induces an alternating current (AC) into the stator windings. The AC voltage is then sent through a series of diodes for rectification. The rectified voltage has been converted into a direct current (DC) for use by the vehicles electrical system to maintain electrical loads and the battery charge. The voltage regulator integral to the generator controls the output of the generator; It is not serviceable. The voltage regulator controls the amount of current provided to the rotor. If the generator has field control circuit fault, the generator defaults to an output voltage of 13.8 V.

The generator is serviced as a complete assembly. If there is a diagnosed fault in the generator, it must be replaced as an assembly.

Generator Pulley

The pulley drives the Generator via the engine drive belt. There are 2 types of pulleys:

1. Conventional solid Pulley which is bolted to the Generator stator shaft. This Pulley can be serviced separately.

2. One Way Clutch Pulley or Overrunning Alternator Decoupler Pulley allows the Generator to spin freely when the engine rapidly slows down on sudden deceleration. This part is not serviceable and the Generator needs to be replaced as an assembly.

Body Control Module (BCM)

The BCM communicates with the Engine Control Module (ECM) and the instrument cluster for electrical power management operation. The BCM determines the output of the generator and sends the information to the ECM for control of the generator turn on signal circuit. It monitors the generator field duty cycle signal circuit information sent from the ECM for control of the generator. It monitors the battery current sensor, the battery positive voltage circuit, and estimates battery temperature to determine battery state of charge. The BCM also performs idle boost.

Battery Current Sensor (if applicable)

The Battery Current Sensor is a serviceable component that is connected to the negative battery cable at the battery. The battery current sensor is a 3-wire hall effect current sensor. The battery current sensor monitors the battery current. It directly inputs to the BCM. It creates a 5 volt Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. Between 0–5% and 95–100% are for diagnostic purposes.

Battery Sensor Module (if applicable)

The BCM monitors the Battery Sensor Module for battery state of current, state of health, and battery charge via serial data. If the battery is determined to be in poor state of health or having a low state of charge, the BCM will not allow the ECM to perform an auto-stop.

Engine Control Module (ECM)

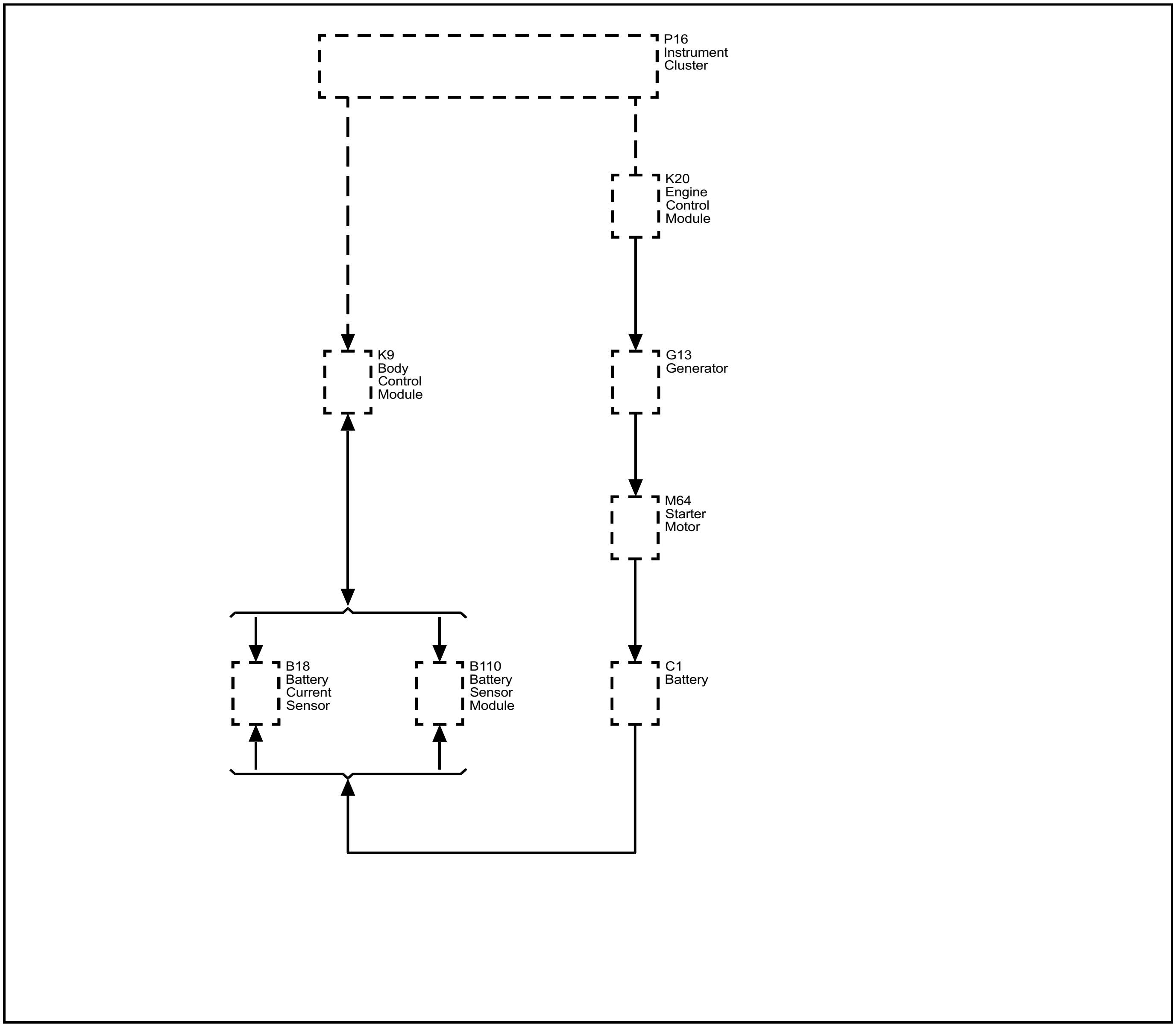
When the engine is running, the generator turn-on signal is sent to the generator from the ECM, turning on the regulator. The generator's voltage regulator controls current to the rotor, thereby controlling the output voltage. The rotor current is proportional to the electrical pulse width supplied by the regulator. When the engine is started, the regulator senses generator rotation by detecting AC voltage at the stator through an internal wire. Once the engine is running, the regulator varies the field current by controlling the pulse width. This regulates the generator output voltage for proper battery charging and electrical system operation. The generator field duty terminal is connected internally to the voltage regulator and externally to the ECM. When the voltage regulator detects a charging system problem, it grounds this circuit to signal the ECM that a problem exists. The ECM monitors the generator field duty cycle signal circuit, and receives control decisions based on information from the BCM.

Instrument Cluster

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

The instrument cluster also provides customer notification if there is a concern with the charging system. There are two means of notification: a charge indicator on the instrument cluster and/or a service system message displayed on the Driver Information Center (DIC) if equipped.

Charging System Block Diagram


P16
Instrument
Cluster
K20
Engine
Control
Module
K9
Body
Control
Module
G13
Generator
M64
Starter
Motor
B18
Battery
Current
Sensor
B110
Battery
Sensor
Module
C1
Battery

3603724

Charging System Operation

The purpose of the charging system is to maintain the battery charge and vehicle loads. There are 6 modes of operation and they include:

- Battery Sulfation Mode
- Charge Mode
- Fuel Economy Mode
- Head lamp Mode
- Start Up Mode
- Voltage Reduction Mode

The ECM Controls the Generator through the generator turn–on signal circuit, also known as the Generator L-terminal. The ECM monitors the generator performance though the Generator field duty cycle signal circuit, also known as the generator F-terminal.

The Generator turn–on signal (Generator L-terminal) is a Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. 0–5% and 95–100% are for diagnostic purposes, with 0–5% monitoring for an open circuit and 95–100% monitoring for a short to ground at a fixed 13.8 V. The following table shows the commanded duty cycle and output voltage of the Generator:

Commanded Duty Cycle	Generator Output Voltage (+/- .25 V)
0–5%	13.8 V
10%	11 V
20%	11.56 V
30%	12.13 V
40%	12.69 V
50%	13.25 V
60%	13.81 V
70%	14.38 V
80%	14.94 V

Commanded Duty Cycle	Generator Output Voltage (+/- .25 V)
90%	15.5 V
95–100%	13.8 V

The Generator provides a PWM feedback signal of the Generator voltage output through the Generator field duty cycle signal circuit to the ECM. This information is sent to the Body Control Module (BCM). The Generator field duty cycle signal (Generator F-terminal) is a PWM signal of 60–460 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–100%. 0–5% is reserved for diagnostic purposes.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage displayed in the DIC to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Charging System Modes

Battery Sulfation Mode

The BCM will enter this mode when the interpreted Generator output voltage is less than 13.2 V for 45 minutes. When this condition exists the BCM will enter Charge Mode for 2–3 minutes. The BCM will then determine which mode to enter depending on voltage requirements.

Charge Mode

The BCM will enter Charge Mode when ever one of the following conditions are met:

- Windshield wipers are ON for more than 3 s.
- Climate Control Voltage Boost Mode Request is true, as sensed by the HVAC control module via serial data. High speed cooling fan, rear defogger, and HVAC high speed blower operation can cause the BCM to enter the Charge Mode.
- The estimated battery temperature is less than 0° C (32°F).
- Battery State of Charge is less than 80%.
- Vehicle speed is greater than 145 km/h (90 mph)
- A current sensor malfunction exists.
- System voltage is determined to be below 12.56 V

When any one of these conditions is met, the system will set targeted generator output voltage to a charging voltage between 13.9–15.5 V, depending on the battery state of charge and estimated battery temperature.

Fuel Economy Mode

The BCM will enter Fuel Economy Mode when the estimated battery temperature is at least 0°C (32°F) but less than or equal to 80°C (176°F), the calculated battery current is less than 15 A and greater than −8 A, and the battery state-of-charge is greater than or equal to 80%. Its targeted generator output voltage is the open circuit voltage of the battery and can be between 12.5–13.1 V. When fuel economy mode is active, the generator is not charging, only maintaining open circuit battery voltage. The BCM will exit this mode and enter Charge Mode when any of the conditions described above are present.

Headlamp Mode

The BCM will enter Headlamp Mode when ever the head lamps are ON (high or low beams). Voltage will be regulated between 13.9–14.5 V.

Start Up Mode

When the engine is started the BCM sets a targeted generator output voltage of 14.5 V for 30 s.

Tow/Haul Mode (if applicable)

Pressing the Tow/Haul Mode button located on the center stack, the vehicle system voltage is raised and the remote (non-vehicle) battery will be charged. Having the headlamps on will raise the system voltage and if the Tow/Haul button is applied it will not serve any purpose. The voltage is regulated between 13.9-14.5 V.

Instrument Cluster Operation

Charge Indicator Operation

The instrument cluster illuminates the charge indicator and displays a warning message in the driver information center if equipped, when the one or more of the following occurs:

- The ECM detects that the generator output is less than 11 V or greater than 16 V. The instrument cluster receives a serial data message from the ECM requesting illumination.
- The instrument cluster determines that the system voltage is less than 11 V or greater than 16 V for more than 30 s. The instrument cluster receives a serial data message from the BCM indicating there is a system voltage range concern.
- The instrument cluster performs the displays test at the start of each ignition cycle. The indicator illuminates for approximately 3 s.

Driver Information Center Message: BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM

The BCM and the ECM will send a serial data message to the driver information center for the BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM message to be displayed. It is displayed when a charging system DTC is a current DTC. The message is turned off when the conditions for clearing the DTC have been met.

Voltmeter Gauge and/or System Voltage Display (if equipped)

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage display in the driver information center to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Electrical Power Management Description and Operation

Electrical Power Management

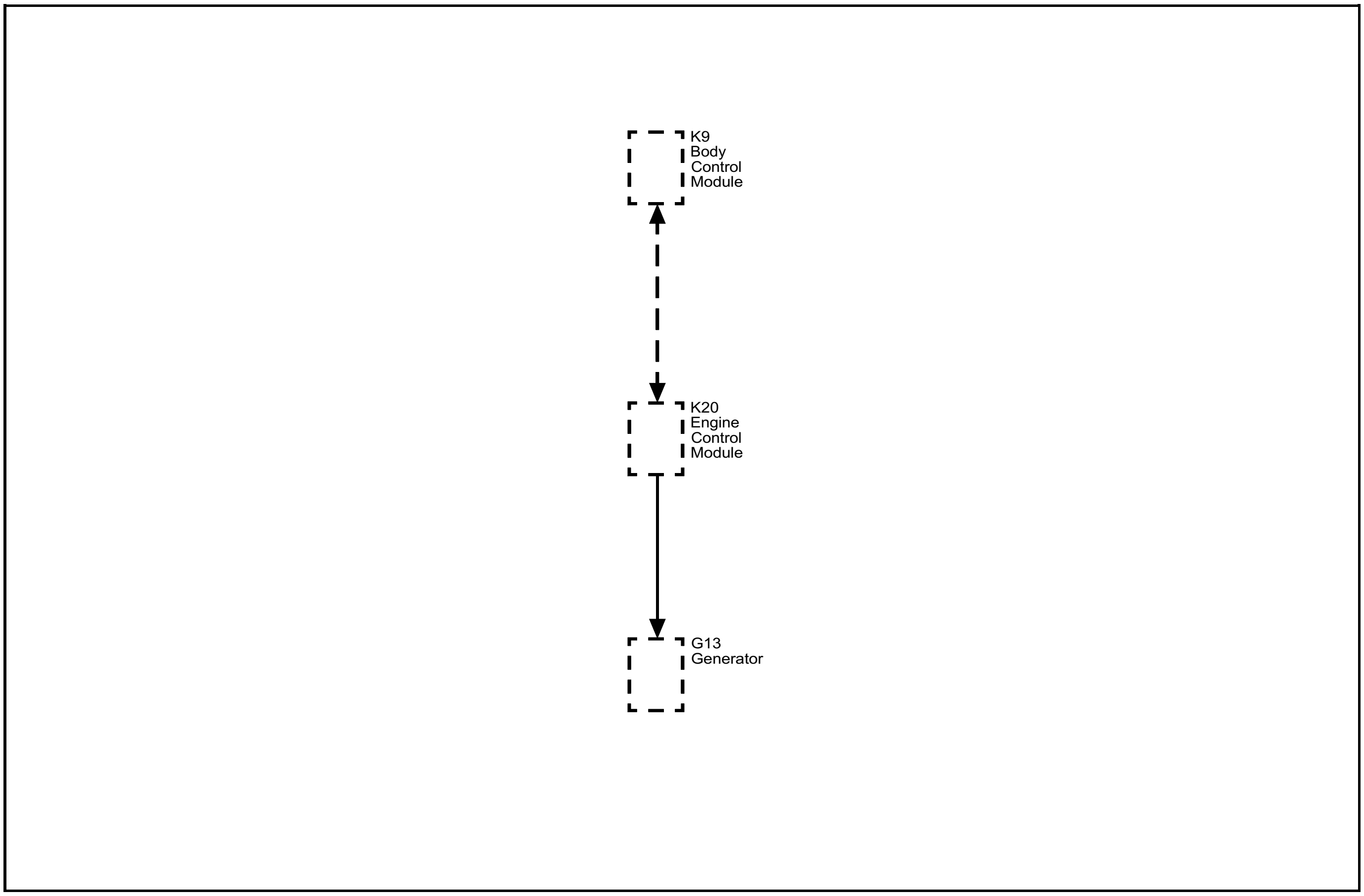
The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition.

Each electrical power management function, either idle boost or load shed, is activated in incremental steps. For example, idle boost 1 must be active before idle boost 2 can be active. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Electrical Power Management Block Diagram



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Idle Boost and Load Shed With Current Sensor

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 Ah	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 11 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −10°C (14°F)	Greater Than 12 V	Battery has a net loss less than 0.2 Ah	First level Idle boost request cancelled
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 Ah	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 11 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 Ah	Second level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 Ah	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 11 V	—	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 Ah	Clear Load Shed 1
Idle Boost 3 Start	—	—	Battery has a net loss of 10 Ah	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 11 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 Ah	Third level Idle boost request cancelled
Load Shed 2 Start	—	—	Battery has a net loss greater than 12 Ah	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 11 V	—	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12 V	Battery has a net loss of less than 8 Ah	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 Ah	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC

Idle Boost and Load Shed With Current Sensor (cont'd)

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Load Shed 3 Start	—	Less Than 11 V	—	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 13 Ah	Clear Load Shed 3

Idle Boost and Load Shed Without Current Sensor (based on battery voltage)

Function	Battery Temperature Calculation	Battery Voltage Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 12.6 V	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	—	First level Idle boost request cancelled
Idle Boost 1 End	—	Greater Than 13 V	First level Idle boost request cancelled
Idle Boost 2 Start	—	Less Than 12.4 V	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12.5 V	Second level Idle boost request cancelled
Load Shed 1 Start	—	Less Than 12.3 V	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12.4 V	Clear Load Shed 1
Idle Boost 3 Start	—	Less Than 10 V	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12.3 V	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 12.1 V	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.2 V	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.0 V	Clear Load Shed 3

Load Shed System Description and Operation

Electrical Power Management

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
				BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Starting System Description and Operation

Starter Motor Operation (Without KL9)

The starter motors are non-repairable. They have pole pieces that are arranged around the armature. Both solenoid windings are energized. The pull-in winding circuit is completed to the ground through the starter motor. The windings work together magnetically to pull and hold in the plunger. The plunger moves the shift lever. This action causes the starter drive assembly to rotate on the armature shaft spline as it engages with the flywheel ring gear on the engine. Moving at the same time, the plunger also closes the solenoid switch contacts in the starter solenoid. Full battery voltage is applied directly to the starter motor and it cranks the engine.

As soon as the solenoid switch contacts close, current stops flowing thorough the pull-in winding because battery voltage is applied to both ends of the windings. The hold-in winding remains energized. Its magnetic field is strong enough to hold the plunger, shift lever, starter drive assembly, and solenoid switch contacts in place to continue cranking the engine. When the engine starts, pinion overrun protects the armature from excessive speed until the switch is opened.

When the crank signal is removed, the starter relay opens and battery voltage is removed from the starter solenoid S terminal. Current flows from the motor contacts through both windings to the ground at the end of the hold-in winding. However, the direction of the current flow through the pull-in winding is now opposite the direction of the current flow when the winding was first energized.

The magnetic fields of the pull-in and hold-in windings now oppose one another. This action of the windings, along with the help of the return spring, causes the starter drive assembly to disengage and the solenoid switch contacts to open simultaneously. As soon as the contacts open, the starter circuit is turned off.

Enhanced Starter Motor Operation (KL9)

The Engine Stop/Start system in GM vehicles automatically turns off the engine when the vehicle comes to a stop under certain driving conditions, and can quickly restart the engine in about 0.3 seconds when commanded to do so.

In order to smoothly restart the engine as quickly as possible while managing the greater number of engine starts, the Stop/Start system uses an enhanced starter motor that operates differently from a conventional starter motor. It has a high performance electric motor and a stronger pinion engagement mechanism than a conventional starter. It also has independent control of the pinion and motor.

The enhanced starter motor continues using the typical pinion engagement mechanism with a starter solenoid that drives the pinion gear to engage or disengage the flywheel of the engine. When engaged, the starter motor can rotate the engine flywheel and, in turn, the crankshaft.

On the enhanced starter of a Stop/Start system the operation is done in two separate functions inside the solenoid, Starter Motor and Pinion Actuator. Each function controlled individually by the ECM. There are two separate relays to control the two separate parts of the enhanced solenoid:

- KR27 Starter Motor Relay
- KR27C Starter Pinion Actuator Relay

The two individually-controlled relays allow for smooth engagement of the pinion gear into the flywheel with minimum noise and wear.

When the vehicle is coming to a stop, just before the engine stops rotating (at approximately 50 RPM) during stop/start operation, the ECM energizes the Starter Pinion Solenoid Actuator Relay to easily push the pinion gear into the flywheel gear without gear clash. (Fig. 8) When the engine stops rotating during Stop/ Start operation (Auto Stop mode), the starter pinion gear is fully engaged, ready for the starter motor to become energized to quickly start the engine again.

A secondary need for the starter pinion to be driven into the flywheel gear before the engine stops rotating is to address quickly changing demands on the engine. For example, when a driver is slowing nearly to a stop — and the Stop/Start system is preparing for Auto Stop mode — but suddenly decides to release the brake and accelerate

In this situation, the engine has already stopped rotating, or nearly so. A conventional starter cannot restart the engine until the engine has completely stopped. However, with the enhanced starter, the starter pinion gear is fully engaged and ready to begin rotating the engine even before it fully stops turning. Otherwise, the engine would actually have to stop rotating before the pinion can engage smoothly to begin a restart.

To prevent a lag in engine operation, the ECM uses predictive speed matching of the flywheel gear speed and the pinion gear speed to engage the pinion gear into the flywheel gear without gear clash before the engine fully stops. By predicting how long it takes the starter motor to spin up using an algorithm, the pinion gear speed can be matched to the flywheel gear speed. The result is an almost instant restart that is possible at extremely low engine speeds.

Circuit Description

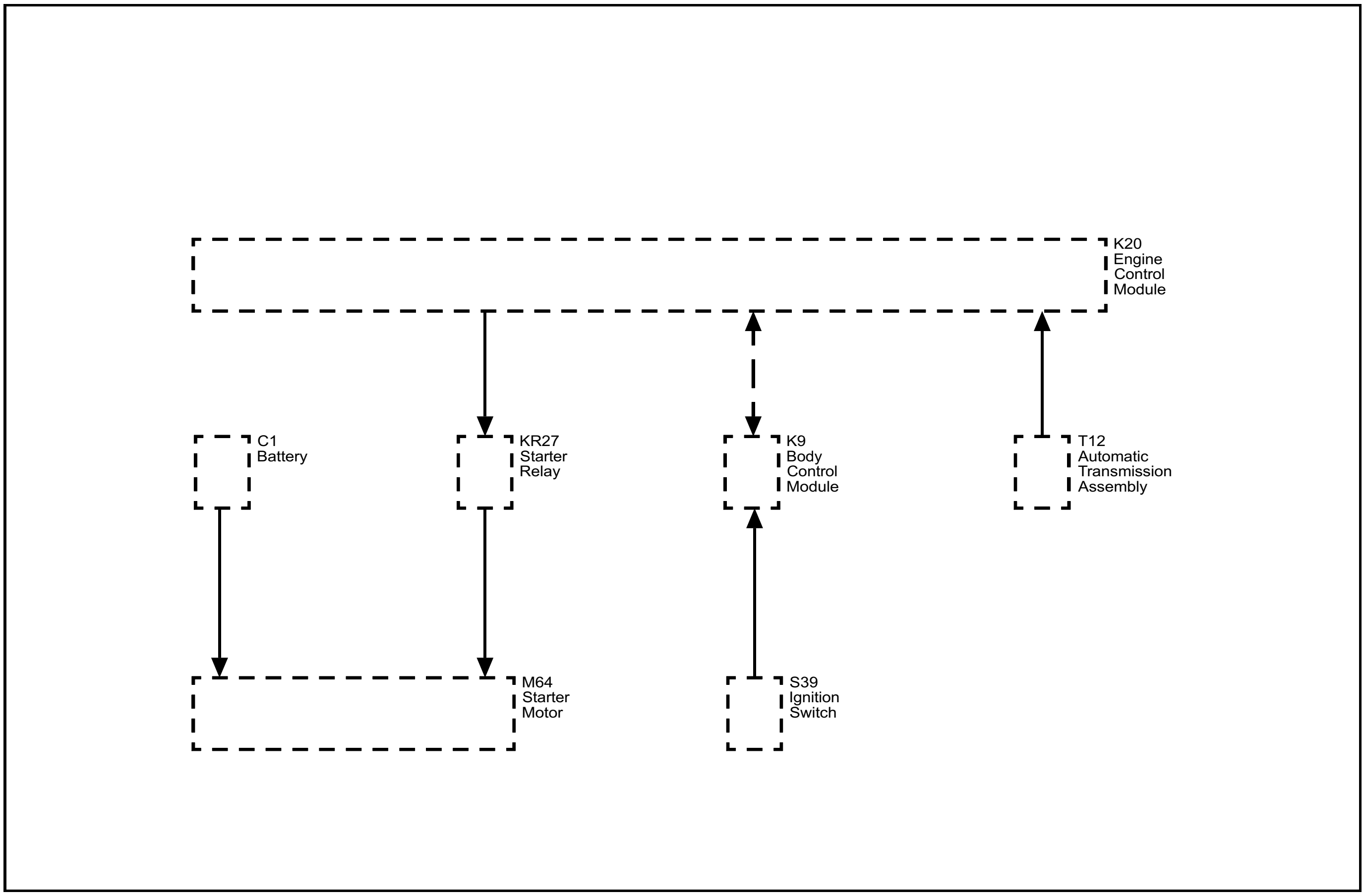
Keyless Start

When the Ignition mode switch is placed in the crank position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the crank position. The BCM then sends a serial data message to the engine control module (ECM) that crank has been requested. The ECM then verifies that the clutch is fully depressed or the automatic transmission is in Park/Neutral. If it is, the ECM then supplies 12 V to the control circuit of the starter relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Key Start

When the ignition switch is placed in the Start position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the Start position. The BCM then sends a message to the engine control module (ECM) notifying it that CRANK has been requested. The ECM verifies that the transmission is in Park or Neutral. If it is, the ECM then supplies 12 V to the control circuit of the crank relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Starting System Block Diagram



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Stop/Start System Description and Operation (KL9)

The Stop/Start System is used to improve fuel efficiency in stop/start driving. The vehicle automatically shuts down the engine in appropriate conditions at a traffic light, for example, resulting in zero tail pipe emissions and saving fuel which otherwise is used idling the engine when stationary. The engine instantly restarts when the driver is ready to move away.

As soon as the driver prepares to move away (by releasing the brake pedal and/or depressing the accelerator pedal), the engine will start; it only takes the system around 0.3 s to start the engine.

To support the increased number of engine starts, the starter motor is upgraded with a high performance electric motor and a stronger pinion engagement mechanism with reduced noise levels.

Along with the upgraded starter motor, advanced battery technology is required to ensure the vehicles battery can handle the frequent charge and discharge cycles common with stop/start operation. There is an intelligent battery sensor connected to the battery which continually monitors the battery charge and healthy state. The engine control module (ECM) uses this information from the intelligent battery sensor to determine if the battery charge and health is sufficient for an Stop/Start condition.

The Stop/Start system can reduce fuel consumption and carbon dioxide (CO2) emissions by up to 5% in mixed driving conditions. In an urban environment and in heavy traffic with frequent stops the savings may increase to as much as 10%.

There are also sophisticated controls in place to help ensure the Stop/Start System does not compromise the needs of either the driver or vehicle. For the engine to shutdown, the vehicle must be below 5 km/h (3 MPH), the selector lever in position D, and brake pedal depressed. To restart, the driver simply releases the brake pedal and the enhanced starter motor engages the engine. When the engine has been shut down by the Stop/Start System, a control indicator will be illuminated in the Driver Information Center (DIC). When the engine is restarted, the control indicator in the DIC extinguishes.

To ensure neither the needs of the driver or vehicle are compromised the engine will not shut down in the following circumstances:

- Ambient and coolant temperature correlation does not match specified values.
- Ambient temperature is less than −10°C (14°F)
- Battery temperature is less than 0°C (32°F) or greater than 55°C (131°F)
- Driver seat belt is not fastened and the drivers door is not fully closed (not applicable to vehicles in North America)
- HVAC system demand is high

- HVAC defrost has been selected
- Battery charge is low
- The learn procedure needs to be completed on the Battery Sensor Module

Likewise the engine will automatically restart if:

- Driver door opened and driver seat belt unbuckled (not applicable to vehicles in North America)
- Engine hood opened
- Battery charge is low
- HVAC demand increases
- Vehicle speed increases
- Brake booster vacuum has been reduced
- Engine coolant temperature is greater than 125°C (257°F)
- Economy mode turned OFF by driver
- Autostop time exceeded 2 min

When the Stop/Start System has shut down the engine, and the ambient temperature is below 15°C (59°F), the ECM will activate the Stop/Start auxiliary relay which controls the electric engine coolant pump motor to continually circulate the engine coolant through the engine while the engine is off. This is to ensure the engine and passenger compartment temperature is maintained while off. Once the Stop/Start System has restarted the engine, the ECM will turn off the electric coolant pump motor, thus allowing the engines internal coolant pump to circulate the engine coolant. The Stop/Start System is automatically activated each time the ignition switch is turned on, although there is an ECO Switch on the instrument panel to disable the system, if the driver so desires.

Autostop Criteria

The ECM will send an Autostop state message to the body control module (BCM) and shut down the engine when all of the following criteria is met. The BCM will transmit the Autostop state message to the instrument cluster which will display the Autostop indicator in the tachometer display.

- Economy mode turned ON
- Initial minimum vehicle speed during drive cycle must be 19 km/h (12 MPH) or greater. Subsequent autostop minimum speed may vary from 2-10 km/h (1-6 MPH), depending on vehicle
- Ambient and engine coolant temperature correlation meets specified values.
- Ambient and transmission fluid temperature correlation meets specified values.
- Hood switch status is closed
- Driver door status is closed
- Driver seat belt status is buckled
- Brake booster vacuum is greater than 45 kPa (7 PSI)
- Transmission gear selector is in the Drive position
- Vehicle speed is less than 5 km/h (3 MPH)
- Engine speed is below 1 500 RPM
- Engine coolant temperature is less than 120°C (248°F)
- Ambient temperature is greater than −10°C (14°F)
- No A/C compressor request from HVAC (A/C or Defrost modes)
- Battery voltage greater than 12 V
- Battery state of charge greater than 75% (changes with state of health)

Autostop Enable Ambient and Engine Coolant Temperature Table

Ambient Temperature	Minimum Coolant Temperature	Autostop Enable
−10°C (14°F)	60°C (140°F)	Yes
0°C (32°F)	50°C (122°F)	Yes
6°C (43°F)	40°C (104°F)	Yes
12°C (54°F)	30°C (86°F)	Yes
20°C (68°F)	18°C (64°F)	Yes
30°C (86°F)	18°C (64°F)	Yes

Autostart Criteria

The ECM will send an Autostart state message to the BCM. If all of the following conditions are true the ECM and BCM will restart the vehicle.

Driver Enabled Conditions that will engage Autostart:

- Driver removes pressure from the brake or depresses the accelerator pedal while the vehicle is in the forward Drive gear

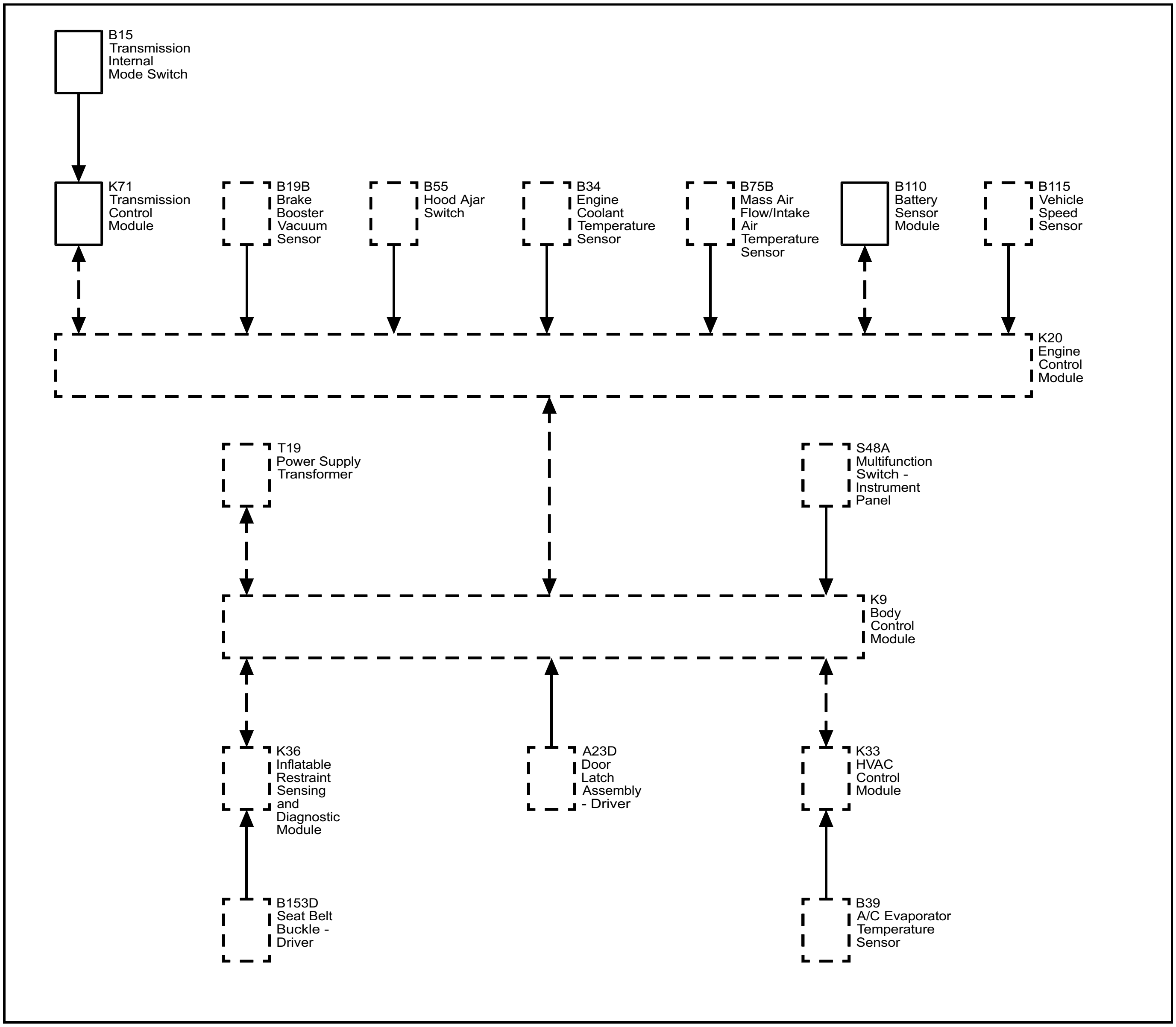
System Enabled Conditions that will engage Autostart

Note: If one or more of the following conditions occur, the system will force the engine to restart.

- Economy mode turned OFF
- Brake booster vacuum is less than 40 kPa (6 PSI)
- HVAC inside air temperature changes than 3°C (5°F) (with HVAC Automatic)
- A/C compressor request from HVAC (A/C or Defrost modes)
- Battery voltage less than 11 V,
- Battery state of charge is less than 73% (changes with state of health)
- Driver door status changes to open and driver seat belt status changes to unbuckled (not applicable to vehicles in North America)
- Hood switch status changes to open
- Autostop time exceeded 2 min

If the crank time exceeds 2 s, a manual ignition switch restart will be necessary.

Start Stop Block Diagram


B15
Transmission Internal Mode Switch
K71
Transmission Control Module
B19B
Brake Booster Vacuum Sensor
B55
Hood Ajar Switch
B34
Engine Coolant Temperature Sensor
B75B
Mass Air Flow/Intake Air Temperature Sensor
B110
Battery Sensor Module
B115
Vehicle Speed Sensor
K20
Engine Control Module
T19
Power Supply Transformer
S48A
Multifunction Switch - Instrument Panel
K9
Body Control Module
K36
Inflatable Restraint Sensing and Diagnostic Module
A23D
Door Latch Assembly - Driver
K33
HVAC Control Module
B153D
Seat Belt Buckle - Driver
B39
A/C Evaporator Temperature Sensor

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System Components

Engine Control Module (ECM)

The engine control module (ECM) monitors the inputs from the engine coolant temperature (ECT) sensor, vehicle speed sensor (VSS), hood ajar switch, brake booster vacuum sensor, the clutch pedal position sensor, the manual transmission neutral position switch and engine speed to determine Autostart and Autostop conditions. The ECM also controls the auxiliary coolant pump motor.

Transmission Control Module (TCM)

The transmission control module monitors the inputs from the transmission neutral safety switch to determine the driver selected gear. This information is transmitted to the ECM via serial data to support the Auto Stop Start algorithm.

Engine Coolant Temperature sensor

The ECT sensor is used to determine engine operating temperature.

Intake Air Temperature Sensor

The ECM uses this sensor to monitor ambient air temperature. If too cold, the Autostop will not occur.

Inside air temperature sensor

The HVAC control module monitors the passenger compartment temperature sensor to determine the temperature inside the passenger compartment. The HVAC control module sends this temperature reading to the ECM on the data communication circuit. The ECM uses this temperature values to determine if a restart is requires based on the temperature inside the passenger compartment.

Vehicle speed sensor

The vehicle speed sensor is used to determine vehicle speed. If vehicle speed is detected above a calculated value during an Autostop condition, the ECM will start the engine.

Hood Ajar Switch

If the hood switch is in the open position, the vehicle will not Autostop. If the hood is opened during Autostop, the vehicle will automatically restart.

Brake Booster Vacuum Sensor

The ECM monitors vacuum in order to ensure proper power assist for the brake pedal. If the ECM determines vacuum is too low, it will restart the engine.

Brake Pedal Position Sensor & Accelerator Pedal Position Sensor

The ECM monitors both the brake pedal position sensor and the accelerator pedal position sensor to determine the level of activation for each. While the accelerator pedal is in it’s at rest position with no pressure applied by the operator, a partially depressed Brake pedal will cause the ECM to prepare the engine for an Autostop event. When the vehicle is in an auto stop event and the status of the brake pedal position sensor changes from meeting the autostop criteria to not meeting this criteria the engine will be restarted provided all of the other conditions to allow an autostart are met. If the Accelerator pedal is moved from its at rest position the vehicle will also enter an auto start event if all other conditions to support an autostart event, except for the brake pedal position, are met.

Transmission Gear Shift Position Switch

The transmission gear shift position switch is used to determine if the transmission is in the proper state to allow an auto stop/start event. The ECM will not allow Autostop until the brake is engaged, the transmission is in the forward gear position and then the vehicle slows to below the minimum speed required to allow and autostop while meeting all of the other minimum criteria to support an autostop event.

Coolant Pump Motor

The ECM will turn on the auxiliary coolant pump motor during Autostop to maintain engine operating temperature and also maintain HVAC temperature. Once the engine is running, the ECM will turn off the coolant pump motor.

Body Control Module (BCM)

The body control module (BCM) monitors the ECO switch in order to enable or disable the system. It is also the master of the low speed communication bus and transfers the appropriate messages to the instrument cluster and the HVAC.

Intelligent Battery Sensor

The ECM monitors the intelligent battery sensor for battery state of current, state of health, and battery charge via the data communication bus. If the battery is determined to be in poor state of health or having a low charge, the ECM will not allow Autostop to occur.

ECO Switch

The ECO switch can disable the Autostart system if desired.

Power Supply Transformer

The DC to DC converter monitors battery voltage and will maintain operating voltage to the radio, instrument cluster and instrument panel displays. The DC to DC converter will provide a boosted voltage to sensitive loads during Autostart to ensure proper operation of the driver informational displays.

Driver Door Switch

The BCM monitors the driver door switch at all times. The BCM will not allow Autostop if the door is ajar and will Autostart if the driver door is opened and the seat belt unbuckled during Autostop.

Driver Seat Belt Switch

The BCM monitors the driver seat belt switch at all times. The BCM will Autostart if the seat belt is unbuckled and the driver door opened during Autostop.

Instrument Cluster

In order to differentiate between a normal engine shut down (engine speed 0 RPM) and when the engine has been shut down by the Stop/Start System, the tachometer needle will rest at the Autostop indicator icon (500 RPM point) indicating the engine has been shut down by the Stop/Start System. Once the engine is restarted, or the ECO button has disengaged Autostop, the tachometer will function normally.

Section 6

HVAC

HVAC - Automatic 6-3
  Schematic and Routing Diagrams 6-3
    HVAC Schematics (CJ2) 6-4
  Description and Operation 6-11
    Automatic HVAC Description and Operation 6-11

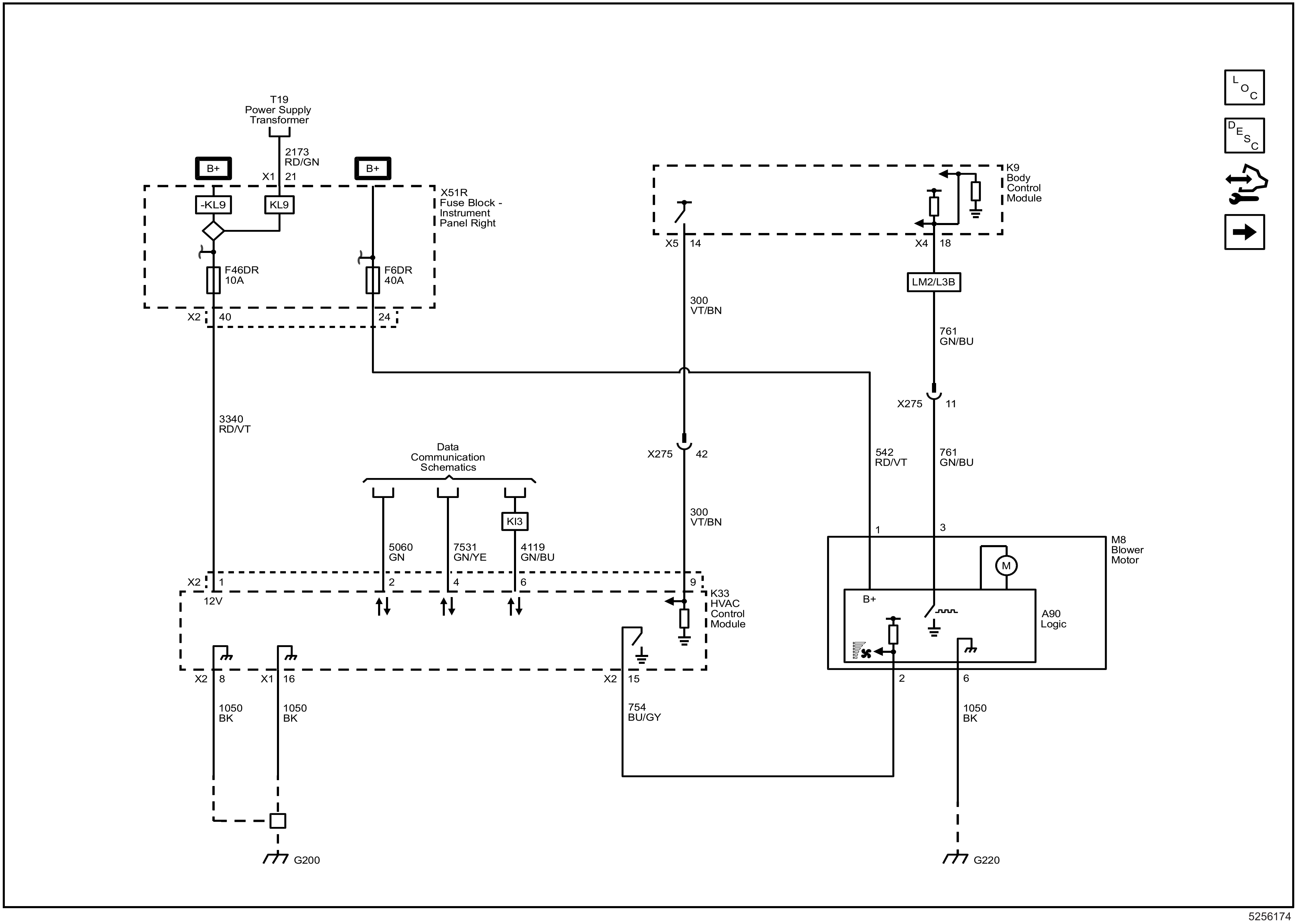
HVAC - Manual 6-15
  Schematic and Routing Diagrams 6-15
    HVAC Schematics (C4P/C67) 6-16
  Description and Operation 6-23
    Manual HVAC Description and Operation 6-23

BLANK

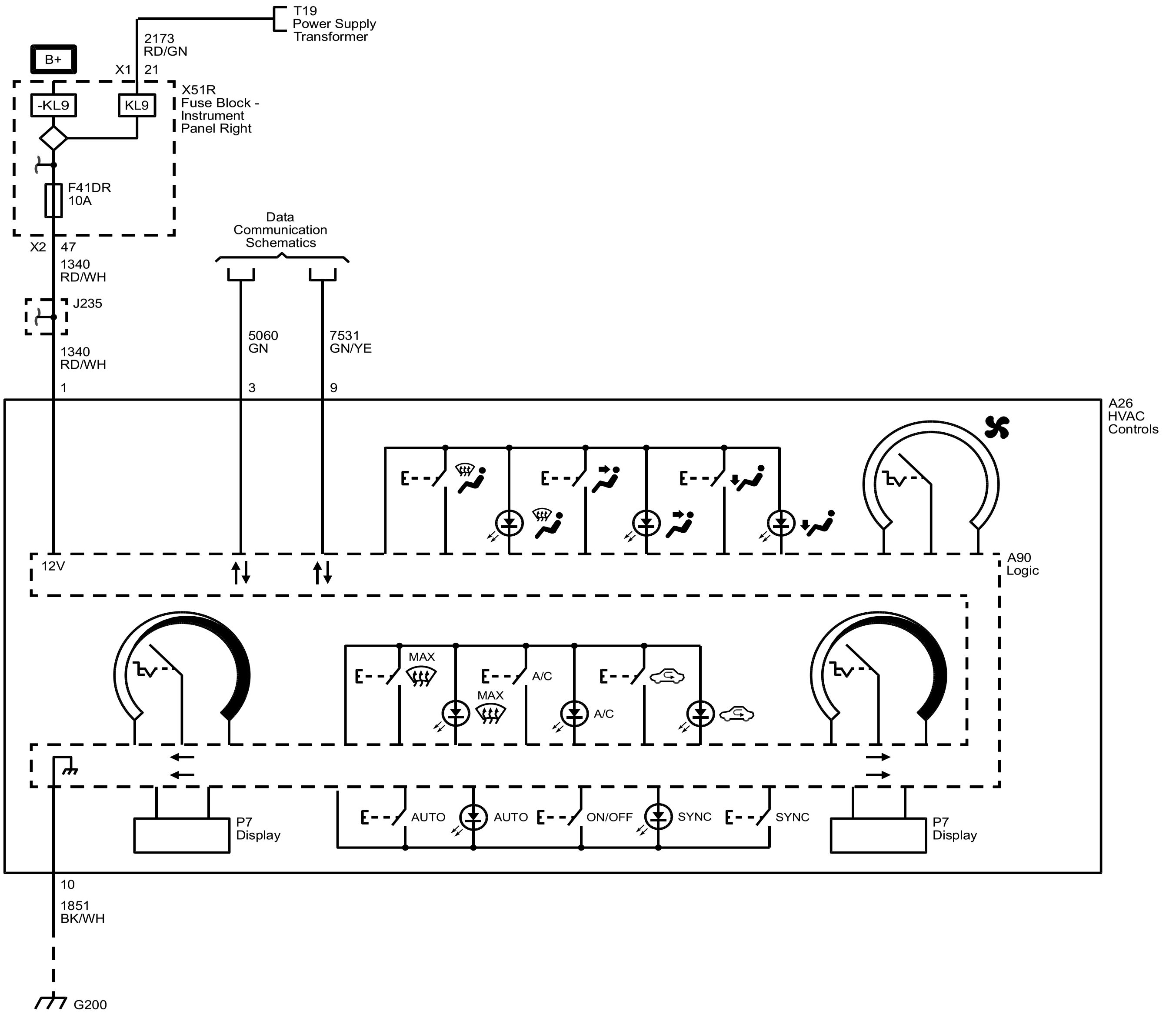
HVAC - Automatic

Schematic and Routing Diagrams

HVAC Schematics (CJ2) (HVAC Module Power, Ground, Serial Data, and Blower Motor)


T19
Power Supply
Transformer
2173
RD/GN
X1 21
B+
B+
-KL9
KL9
X51R
Fuse Block -
Instrument
Panel Right
F46DR
10A
F6DR
40A
X2 40
24
3340
RD/VT
Data
Communication
Schematics
KI3
5060
GN
7531
GN/YE
4119
GN/BU
X2 1
12V
2
4
6
9
K33
HVAC
Control
Module
X2 8
X1 16
X2 15
1050
BK
1050
BK
754
BU/GY
G200
X5 14
300
VT/BN
X275 42
300
VT/BN
K9
Body
Control
Module
X4 18
LM2/L3B
761
GN/BU
X275 11
542
RD/VT
761
GN/BU
1
3
M8
Blower
Motor
M
B+
A90
Logic
2
6
1050
BK
G220
L O C
D E S C
5256174

HVAC Schematics (CJ2) (HVAC Controls)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Power Supply
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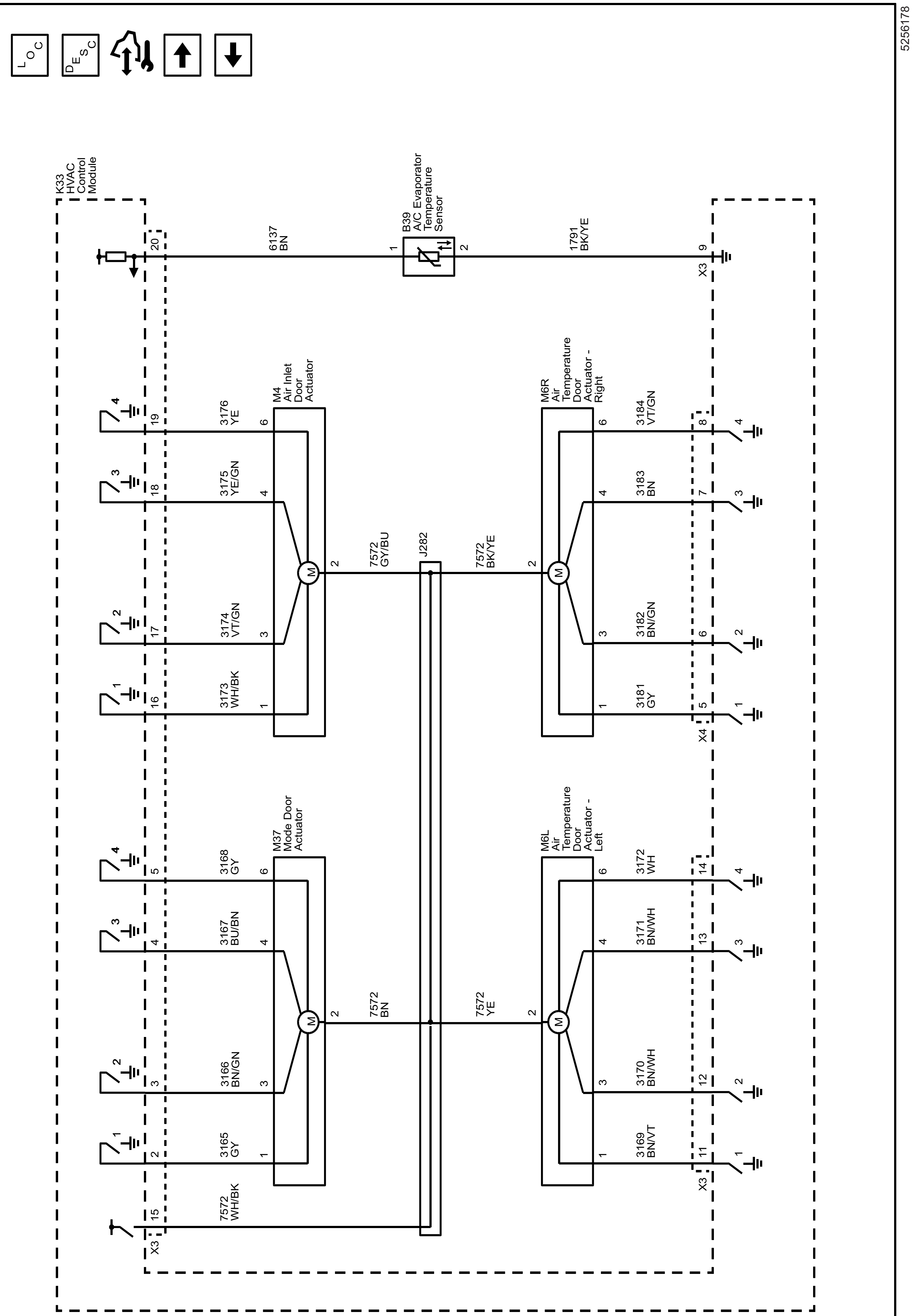
2173
RD/GN
B+
X1 21
-KL9
KL9
X51R
Fuse Block -
Instrument
Panel Right
F41DR
10A
X2 47
1340
RD/WH
J235
1340
RD/WH
1
Data
Communication
Schematics
5060
GN
3
7531
GN/YE
9
A26
HVAC
Controls
12V
A90
Logic
MAX
A/C
MAX
A/C
AUTO
AUTO
ON/OFF
SYNC
SYNC
P7
Display
P7
Display
10
1851
BK/WH
G200

5256176

HVAC Schematics (CJ2) (Temperature and Mode)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1
B39 A/C Evaporator Temperature Sensor
2
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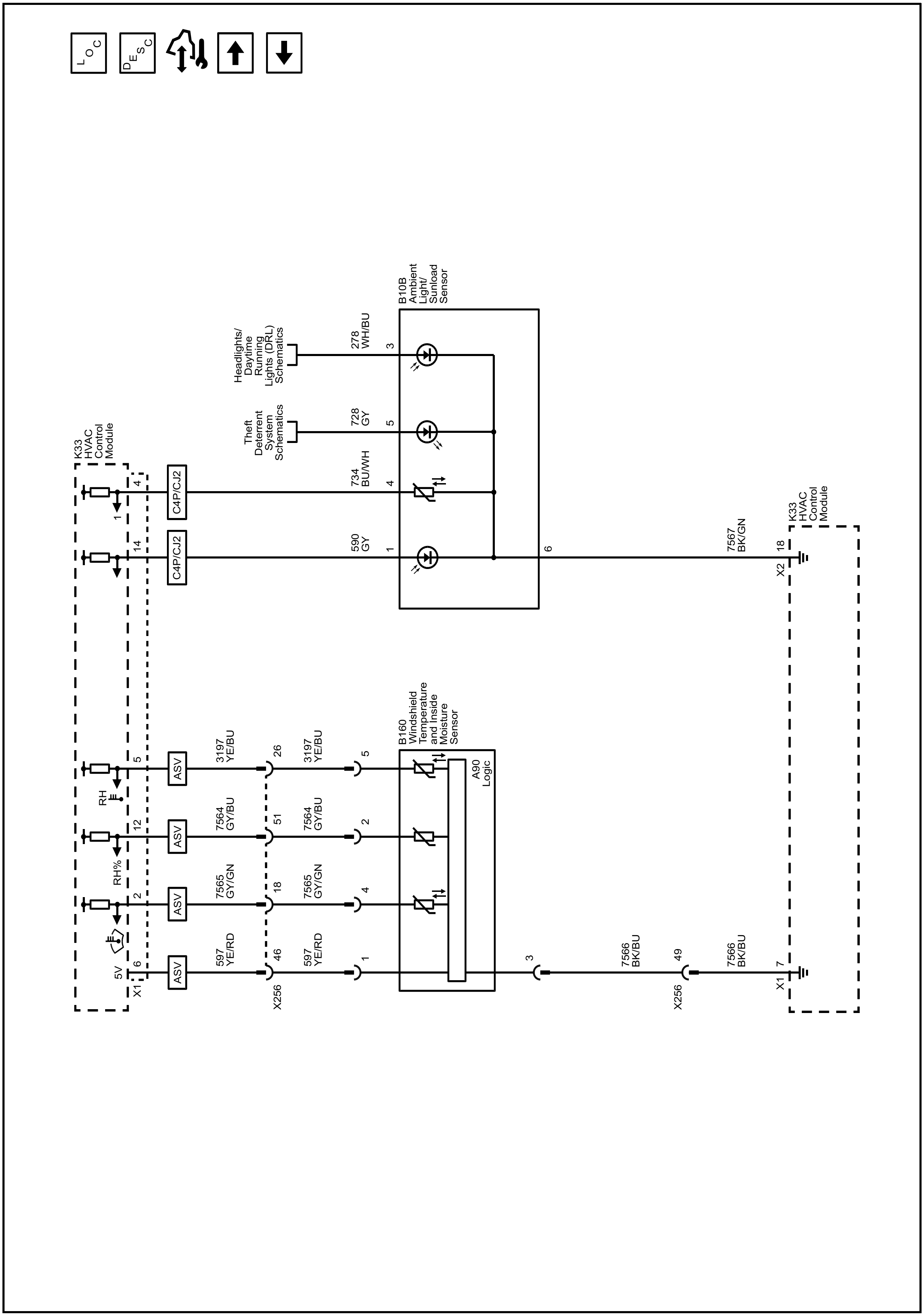
9
X3
M4 Air Inlet Door Actuator
19
3176 YE
6
18
3175 YE/GN
4
17
3174 VT/GN
3
16
3173 WH/BK
1
2
7572 GY/BU
J282
7572 BK/YE
M6R Air Temperature Door Actuator - Right
3184 VT/GN
8
3183 BN
7
3182 BN/GN
6
3181 GY
5
X4
M37 Mode Door Actuator
5
3168 GY
4
3167 BU/BN
3
3166 BN/GN
2
3165 GY
15
7572 WH/BK
7572 BN
7572 YE
M6L Air Temperature Door Actuator - Left
3172 WH
14
3171 BN/WH
13
3170 BN/WH
12
3169 BN/VT
11
M

HVAC Schematics (CJ2) (Windshield and Sunload Sensors (ASV/C4P/CJ2))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LOC
DESC
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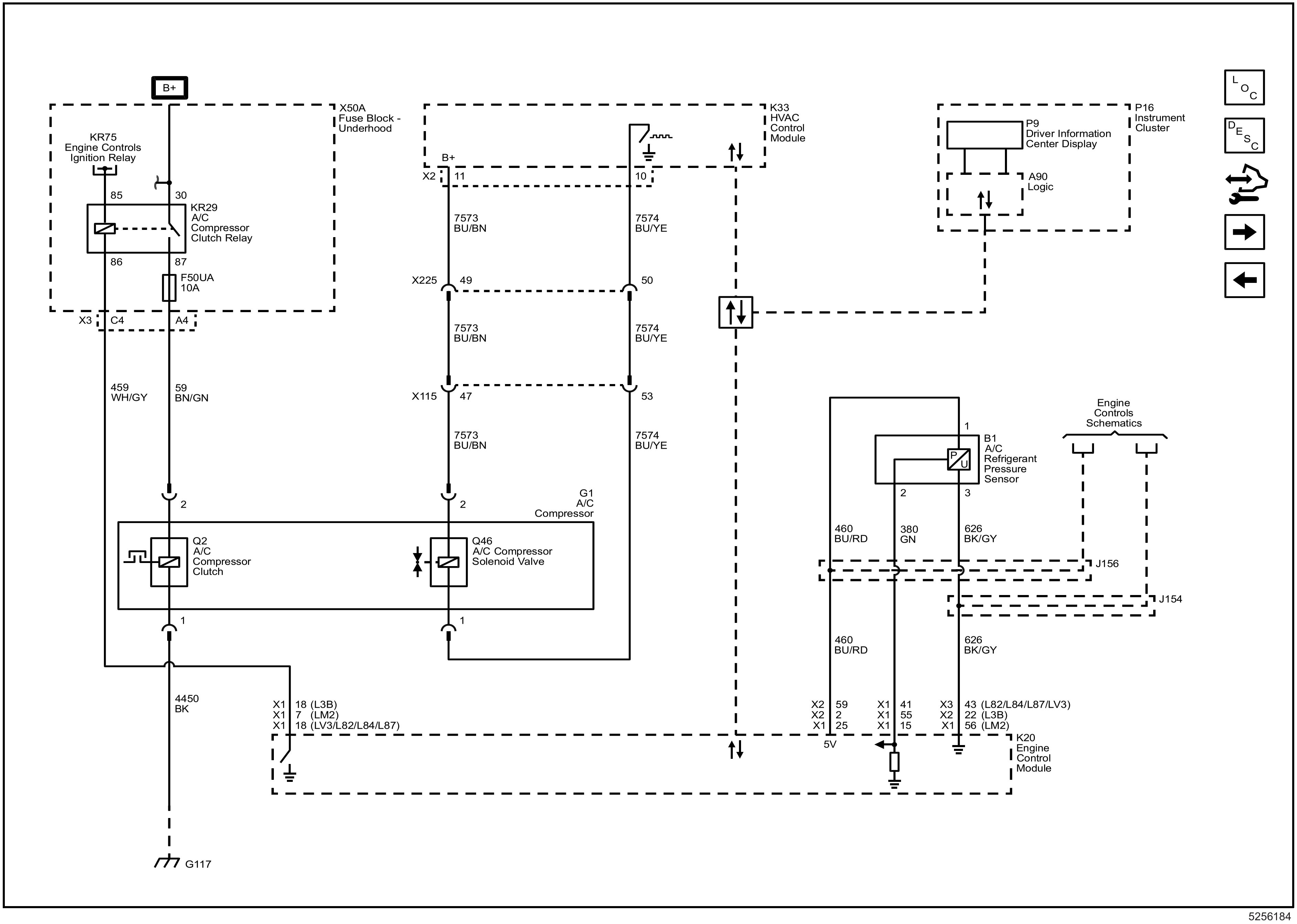
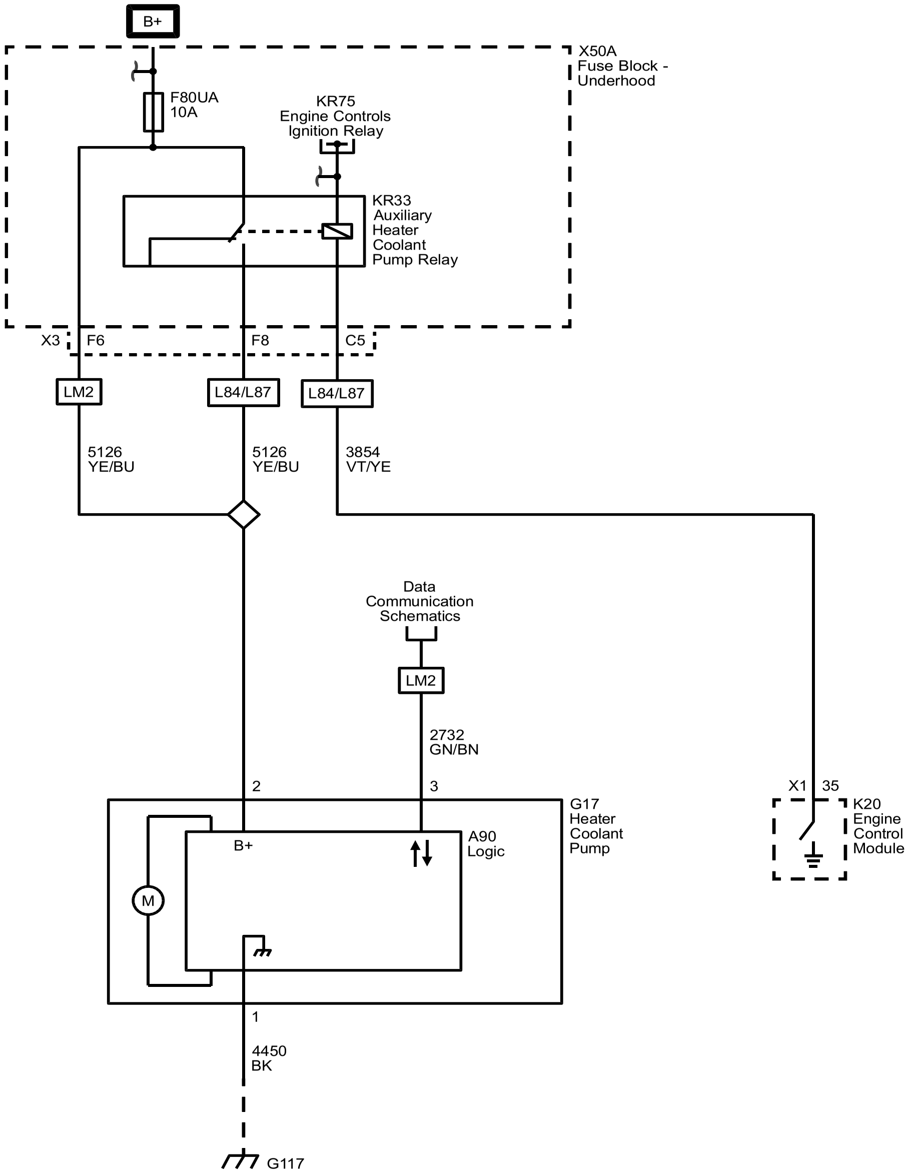
X1
5V
6
2
RH%
12
RH
5
1
4
14
ASV
C4P/CJ2
597 YE/RD
7565 GY/GN
7564 GY/BU
3197 YE/BU
734 BU/WH
590 GY
X256
46
18
51
26
1
4
2
5
B160 Windshield Temperature and Inside Moisture Sensor
A90 Logic
3
7566 BK/BU
49
7566 BK/BU
X1 7
Theft Deterrent System Schematics
Headlights/ Daytime Running Lights (DRL) Schematics
728 GY
278 WH/BU
3
5
4
1
B10B Ambient Light/ Sunload Sensor
6
7567 BK/GN
X2 18
K33 HVAC Control Module

HVAC Schematics (CJ2) (A/C Compressor Controls)

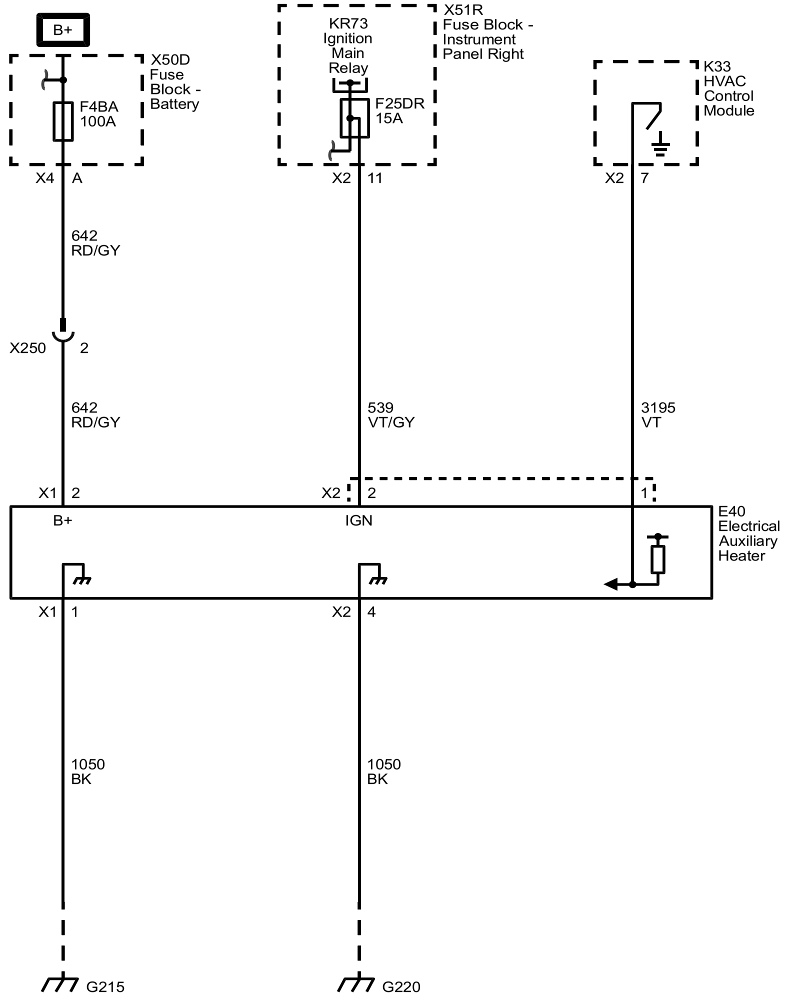

B+
X50A
Fuse Block -
Underhood
KR75
Engine Controls
Ignition Relay
85
30
KR29
A/C
Compressor
Clutch Relay
86
87
F50UA
10A
X3
C4
A4
459
WH/GY
59
BN/GN
K33
HVAC
Control
Module
B+
X2
11
10
7573
BU/BN
7574
BU/YE
X225
49
50
X115
47
53
G1
A/C
Compressor
2
Q2
A/C
Compressor
Clutch
Q46
A/C Compressor
Solenoid Valve
1
4450
BK
G117
X1 18 (L3B)
X1 7 (LM2)
X1 18 (LV3/L82/L84/L87)
P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
Engine
Controls
Schematics
B1
A/C
Refrigerant
Pressure
Sensor
P
U
1
2
3
460
BU/RD
380
GN
626
BK/GY
J156
J154
X2 59
X2 2
X1 25
X1 41
X1 55
X1 15
X3 43 (L82/L84/L87/LV3)
X2 22 (L3B)
X1 56 (LM2)
5V
K20
Engine
Control
Module
L O C
D E S C
5256184

HVAC Schematics (CJ2) (Heater Coolant Pump (KL9))


B+
X50A
Fuse Block - Underhood
F80UA
10A
KR75
Engine Controls Ignition Relay
KR33
Auxiliary Heater Coolant Pump Relay
X3
F6
F8
C5
LM2
L84/L87
L84/L87
5126
YE/BU
5126
YE/BU
3854
VT/YE
Data Communication Schematics
LM2
2732
GN/BN
2
3
G17
Heater Coolant Pump
A90
Logic
B+
M
1
4450
BK
G117
X1
35
K20
Engine Control Module

5256188

HVAC Schematics (CJ2) (Auxiliary Heater (C32))


B+
X50D
Fuse
Block -
Battery
F4BA
100A
X4 A
642
RD/GY
X250 2
642
RD/GY
X1 2
B+
KR73
Ignition
Main
Relay
X51R
Fuse Block -
Instrument
Panel Right
F25DR
15A
X2 11
539
VT/GY
X2 2
IGN
K33
HVAC
Control
Module
X2 7
3195
VT
1
E40
Electrical
Auxiliary
Heater
X1 1
1050
BK
G215
X2 4
1050
BK
G220

5256190

Description and Operation

Automatic HVAC Description and Operation

The air temperature and the air delivery description and operation are divided into eight areas:

- HVAC Control Components
- Air Speed
- Air Delivery
- Heating and A/C Operation
- Recirculation Operation
- Automatic Operation
- Engine Coolant and A/C System Refrigerant

HVAC Control Components

HVAC Controls

The HVAC controls contains all switches, buttons, and dials which are required to control the functions of the HVAC system and serve as interface between the operator and the HVAC control module. The selected values are passed to the HVAC control module via LIN-Bus.

HVAC Control Module

The HVAC control module is a GMLAN device that interfaces between the operator and the HVAC system to maintain and control desired air temperature and air distribution settings. The battery positive voltage circuit provides power that the HVAC control module uses for keep alive memory. If the battery positive voltage circuit loses power, all HVAC DTCs and settings will be erased from keep alive memory. The body control module (BCM), which is the vehicle mode master, provides a device ON-Signal. The HVAC control module provides blower, air delivery mode and air temperature settings.

The HVAC control module supports the following features:

Feature	Availability
Afterblow	Available if reprogrammed by the technician
Purge	Yes
Personalization	Yes
Actuator Calibration	Yes

Actuators

Doors in the HVAC case assembly are used to control air flow. The HVAC control module operates the doors through the use of actuators, with one actuator being used for each door. The system has the following air control doors and associated actuators: mode, temperature, right temperature (CJ2), and recirculation.

Each actuator used in the system is a 5-wire stepper motor. The HVAC control module supplies a 12 V reference voltage to the stepper motor and energizes the 4 stepper motor coils with a pulsed ground signal. The stepper motor moves the associated air control door into the calculated position in order to reach the selected position. The null point of the stepper motor will be calibrated, if the stepper motor is new. When the stepper motor is calibrated, the HVAC control module can drive the applicable coil to reach exactly the desired position of the air control door.

Blower Motor and Control Module

The blower motor control module varies the speed of the blower motor by varying the voltage to the motor. A battery voltage circuit, ground circuit, and speed request signal circuit from the HVAC control module allow the blower motor control module to operate. The HVAC control module provides a low side pulse width modulation (PWM) signal to the blower motor control module to request a specific motor speed. The blower motor control module translates the PWM signal and drives the motor accordingly.

The blower motor control module has a signal wire used to output a speed signal. The signal is monitored by the BCM, and the value is sent to the ECM via serial data. The ECM monitors the blower motor speed to modify the total commanded engine coolant flow rate, which is a percentage of available coolant flow sent to the heater core for occupant comfort and windshield defrosting. When the HVAC Blower Speed is determined to be zero, the ECM disables the heater core coolant flow to optimize engine coolant flow for fuel economy and emissions.

Evaporator Temperature Sensor

The evaporator temperature sensor is a 2-wire negative temperature co-efficient thermistor. The sensor operates within a temperature range of −40 to +85°C (−40 to +185°F). The sensor is installed at the evaporator and measures its temperature. If the temperature drops under 3°C (38°F), the compressor will be switched off in order to prevent evaporator icing.

A/C Refrigerant Pressure Sensor

The A/C refrigerant pressure sensor is a 3-wire piezoelectric pressure transducer. A 5 V reference voltage, low reference, and signal circuits enable the sensor to operate. The A/C pressure signal can be between 0.2–4.8 V. When the A/C refrigerant pressure is low, the signal value is near 0 V. When the A/C refrigerant pressure is high, the signal value is near 5 V. The engine control module (ECM) converts the voltage signal to a pressure value. When pressure is too high or too low, the ECM will not allow the A/C compressor clutch to engage.

A/C Compressor

The A/C compressor uses a conventional belt driven magnetic clutch to engage and mechanically turn the compressor. When the A/C switch is pressed, the HVAC control module sends an A/C request message to the ECM via serial data. If specific criteria is met, the ECM then grounds the A/C compressor clutch relay control circuit, which will switch the A/C compressor clutch relay. With the relay contacts closed, battery voltage is supplied to the permanently grounded A/C compressor clutch. The A/C compressor clutch will then be activated.

This A/C system utilizes a variable displacement solenoid valve to alter the amount of displacement created by the turning of the compressor. The HVAC control module provides both battery voltage and a pulse width modulated ground to the variable displacement solenoid valve. When the A/C switch is pressed, the HVAC control module grounds the variable displacement solenoid using a (PWM) signal in order to determine the amount of compressor displacement. The performance of the A/C compressor is regulated based on cooling load.

Ambient Light/Sunload Sensor

The sunload sensor is connected to ground and to a 12 V clocked power supply through the HVAC control module. This clocked power supply is to power the sensor electronics and to work as a clock generator to the sunload sensor micro controller. The sensor uses a pulse signal for data identification and transferring the sun intensity measurement. At each positive transition from the clocked supply input, the sunload sensor micro controller will shift channels enabling new intensity measurement on the signal output to the HVAC control module. The signal voltage varies between 0–4 V.

The passenger compartment temperature sensor is a negative temperature co-efficient thermistor. A signal and low reference circuit enables the sensor to operate. As the air temperature increases, the sensor resistance decreases. The sensor signal varies between 0–5 V.

Bright or high intensity light causes the vehicles interior temperature to increase. The HVAC system compensates for the increased temperature by diverting additional cool air into the vehicle.

Windshield Temperature and Inside Moisture Sensor

The windshield temperature and inside moisture sensor includes the relative humidity sensor, windshield temperature sensor and humidity sensing element temperature sensor all in one assembly.

This sensor assembly provides information about:

- Relative humidity level at the windshield inside the vehicle
- Temperature of the windshield inside the vehicle
- Temperature of the humidity sensor element

Air Speed

The blower control switch is part of the HVAC controls. The selected value of the blower switch position is sent to the HVAC control module via LIN-Bus. The HVAC control module provides a low side pulse width modulation (PWM) signal to the blower motor control module to request a specific motor speed. The blower motor translates the PWM signal and drives the motor accordingly.

Afterblow

Afterblow is a feature that dries the evaporator core by operating the blower motor after the engine is turned OFF. This reduces the amount of microbial growth that can create undesirable odors. The vehicle does not come equipped with the afterblow feature turned ON. If the afterblow feature is required due to an odor concern, it must be enabled using the scan tool Afterblow configuration function.

After the HVAC control module has been programmed for afterblow, the following conditions must be met for afterblow to operate:

- The engine has been turned OFF for at least 30 minutes.
- The ambient air temperature is at least 21°C (70°F).
- The A/C compressor operated for more than 2 minutes before shut down.
- The system voltage is at least 12 volts.

Once the above conditions have been met, the blower motor will perform the following sequence up to 5 times. This could last up to an hour:

1. The blower motor will be OFF for 7–11 minutes.
2. The blower motor will RUN for 25–30 seconds.

Air Delivery

The HVAC control module controls the distribution of air by the use of recirculation and mode door actuator. The modes that may be selected are:

- Defrost
- Defog
- Panel
- Floor

The desired air distribution mode can be selected with the air distribution switches at the HVAC control. The HVAC control delivers the values to the HVAC control module via LIN-Bus. The HVAC control module controls the mode door actuator so that it drives the door to the calculated position. Depending on the position of the door, air is distributed through various ducts leading to the outlets in the dash. Turning the mode door to the defrost position, the HVAC control module will move the recirculation actuator to outside air, reducing window fogging. When defrost is selected, the blower motor will be activated, regardless of the coolant temperature. The HVAC control module enables a high volume of air delivered to the front defrost vents. A/C is available in all modes.

The rear window defogger does not affect the HVAC system.

Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. Regardless of the temperature setting, the following can affect the rate that the HVAC system can achieve the desired temperature:

- Recirculation actuator setting
- Difference between inside and desired temperature
- Blower motor speed setting
- Mode setting

When the A/C switch is pressed, the HVAC controls sends a signal to the HVAC control module via LIN-Bus. The HVAC control module evaluates this signal and sends an A/C request signal to the ECM via CAN-Bus. The ECM checks all preconditions before releasing and if all conditions are met sends a release signal back to the HVAC control module. The ECM will provide a ground for the A/C compressor relay enabling it to close its internal contacts to send battery voltage to the A/C compressor clutch coil. The A/C compressor clutch will be activated. The performance of the A/C compressor is regulated via a variable A/C compressor solenoid valve. The HVAC control module supplies battery voltage to the A/C compressor. When the A/C switch is pressed, the HVAC control module provides a pulse width modulation (PWM) signal to the A/C compressor solenoid valve in order to command the performance of the A/C compressor.

The following conditions must be met in order to activate the A/C compressor:

- Battery voltage is between 9–18 V
- Engine coolant temperature is less than 124°C (255°F)
- Engine speed is greater than 600 RPM
- Engine speed is less than 5 500 RPM
- A/C high side pressure is between 269–2 929 kPa (39–425 PSI)
- Throttle position is less than 100%
- Evaporator temperature is greater than 3°C (38°F)
- ECM does not detect immoderate torque load
- ECM does not detect insufficient idle quality
- The ambient temperature is above 1°C (34°F)

The sensor information is used by the ECM to determine the following:

- The A/C high side pressure
- An A/C system load on the engine
- An immoderate A/C high side pressure
- The heat load at the A/C condenser

The air streams into the passenger compartment through the heater core and the evaporator core. The air temperature actuator drives the mixed air door to direct the airflow. If the interior temperature should be increased, the mixed air door is put into the position in which more air streams through the heater core. If the interior temperature should be decreased, the mixed air door is put into the position in which more air streams through the evaporator core.

Recirculation Operation

The recirculation switch is integrated into the HVAC control. The selected recirculation setting is sent to the HVAC control module via LIN-Bus. The HVAC control module controls the air intake using the recirculation actuator. In recirculation mode the recirculation door is positioned to block outside air from entering and circulate the air within the vehicle. In outside air mode the recirculation door is positioned to route outside air into the vehicle.

Recirculation is only available if the defrost mode is not active. When the defrost mode is active, the recirculation actuator positions the recirculation door so that outside air is circulated to the windshield to reduce fogging.

In automatic mode the values of the sensors are used as inputs for the HVAC control module to calculate the fog risk on passenger compartment side of the windshield. The A/C compressor and the defrost mode may activated to prevent or remove fog on the passenger compartment side of the windshield.

Automatic Operation

In automatic operation, the HVAC control module maintains the comfort level inside of the vehicle by controlling the A/C compressor clutch, the blower motor, the air temperature actuators, mode actuator and recirculation actuator.

To put the HVAC system in automatic mode, the following is required:

1. The auto switch must be activated.
2. The air temperature switch must not be in either the full hot or full cold position.

Once the desired temperature is reached, the blower motor, mode, recirculation and temperature actuators automatically adjust to maintain the temperature selected. The HVAC control module performs the following functions to maintain the desired air temperature:

- Monitors the following sensors:
  - Ambient air temperature sensor
  - Ambient light/sunload sensor
  - Windshield temperature and inside moisture sensor
- Regulate the blower motor speed
- Position the air temperature actuators
- Position the mode door actuator
- Position the recirculation actuator
- Request A/C operation
- Control of the A/C compressor

When the warmest position is selected in automatic operation the blower speed will increase gradually until the vehicle reaches normal operating temperature. When normal operating temperature is reached the blower stays on high speed and the air temperature actuators stays in the full heat position.

When the coldest position is selected in automatic operation the blower stays on high and the air temperature actuators stay in full cold position. The mode actuator remains in the panel position and the recirculation actuator will remain in the recirculation position.

Under cold ambient temperatures, the automatic HVAC system provides heat in the most efficient manner. The operator can select an extreme temperature setting but the system will not warm the vehicle any faster. Under warm ambient temperatures, the automatic HVAC system also provides air conditioning in the most efficient manner. Selecting an extreme cool temperature will not cool the vehicle any faster.

Electric Auxiliary Heater (C32)

Some models are equipped with an auxiliary electric heater to assist in warming the passenger compartment when the engine coolant has not sufficiently warmed to operating temperature. The heater is a 12 V positive temperature coefficient heating element located in the HVAC case just downstream of the traditional heater core. The HVAC control module will activate it when the outside temperature is less than approximately 8°C (46°F), the engine coolant temperature is less than approximately 75°C (167°F), and the temperature blend door is commanded to the full hot position.

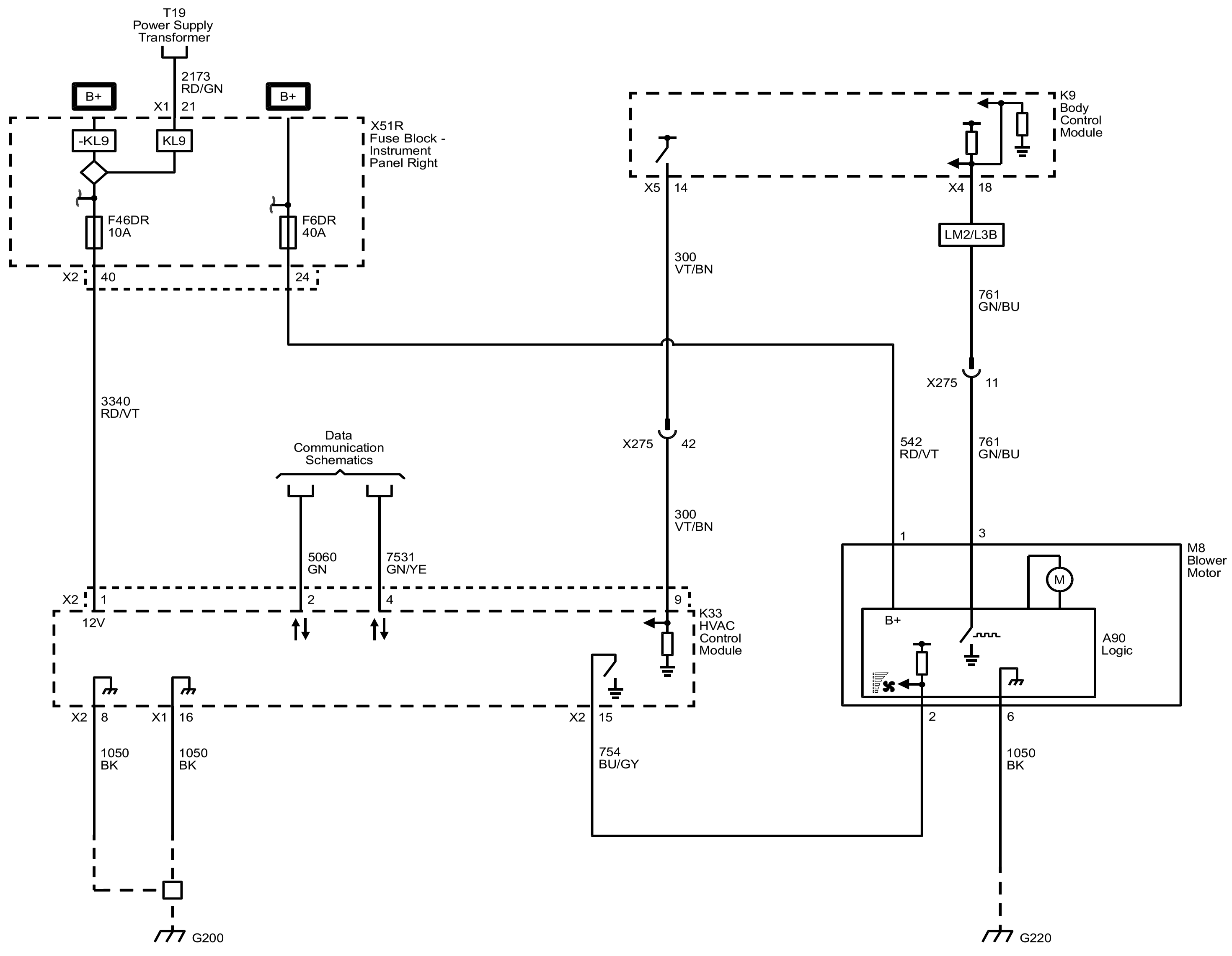
Engine Coolant and A/C System Refrigerant

For information on engine coolant, coolant flow, A/C refrigerant, and the A/C refrigerant cycle, refer to Heating and Air Conditioning System Description and Operation.

HVAC - Manual

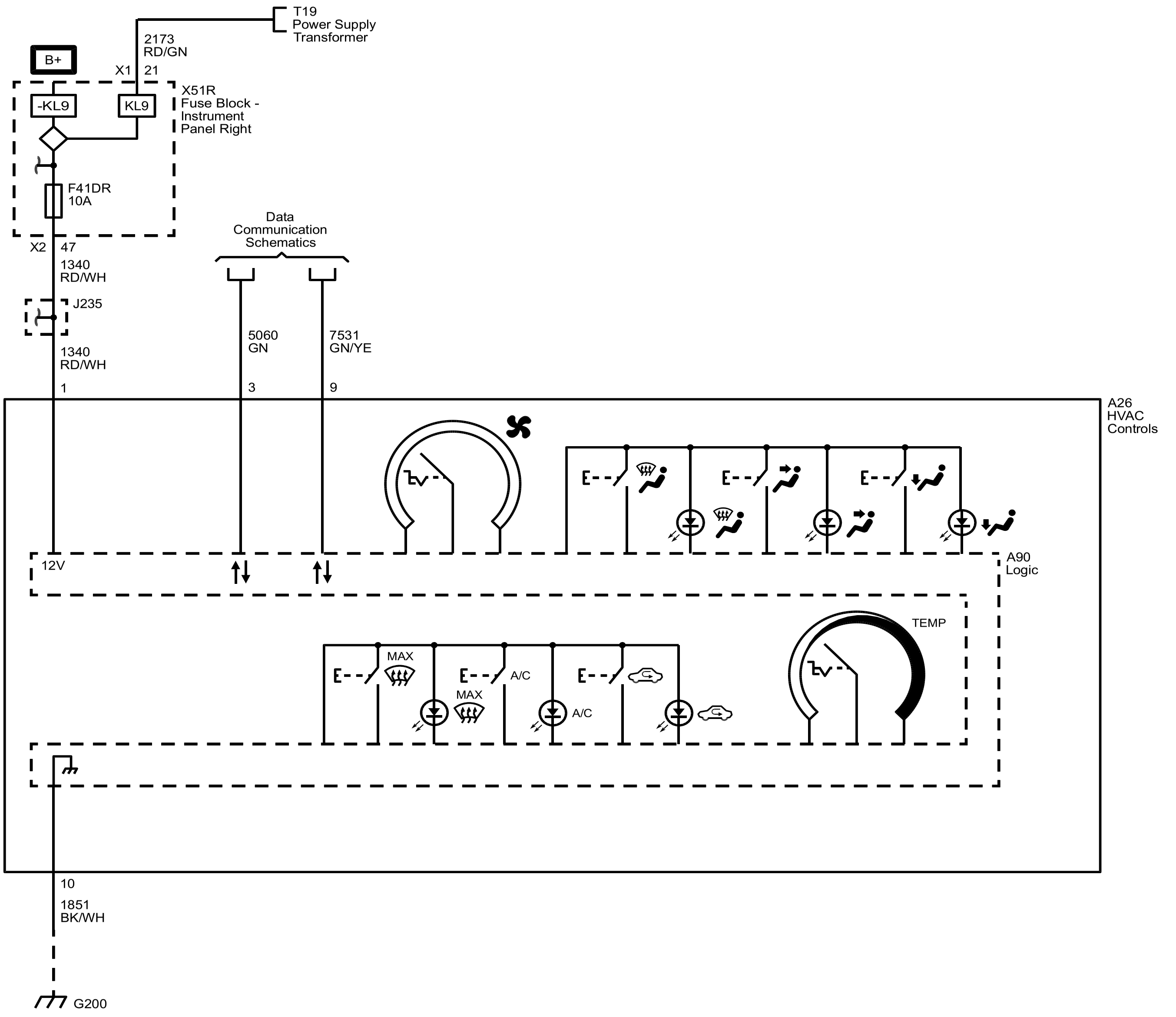
Schematic and Routing Diagrams

HVAC Schematics (C4P/C67) (HVAC Module Power, Ground, Serial Data, and Blower Motor)


T19
Power Supply
Transformer
2173
RD/GN
X1 21
B+
B+
-KL9
KL9
X51R
Fuse Block -
Instrument
Panel Right
F46DR
10A
F6DR
40A
X2 40
24
3340
RD/VT
Data
Communication
Schematics
5060
GN
7531
GN/YE
X2 1
12V
2
4
K9
Body
Control
Module
X5 14
X4 18
LM2/L3B
300
VT/BN
761
GN/BU
X275 11
X275 42
542
RD/VT
761
GN/BU
300
VT/BN
9
K33
HVAC
Control
Module
1
3
M8
Blower
Motor
M
B+
A90
Logic
X2 8
X1 16
X2 15
1050
BK
1050
BK
754
BU/GY
2
6
1050
BK
G200
G220

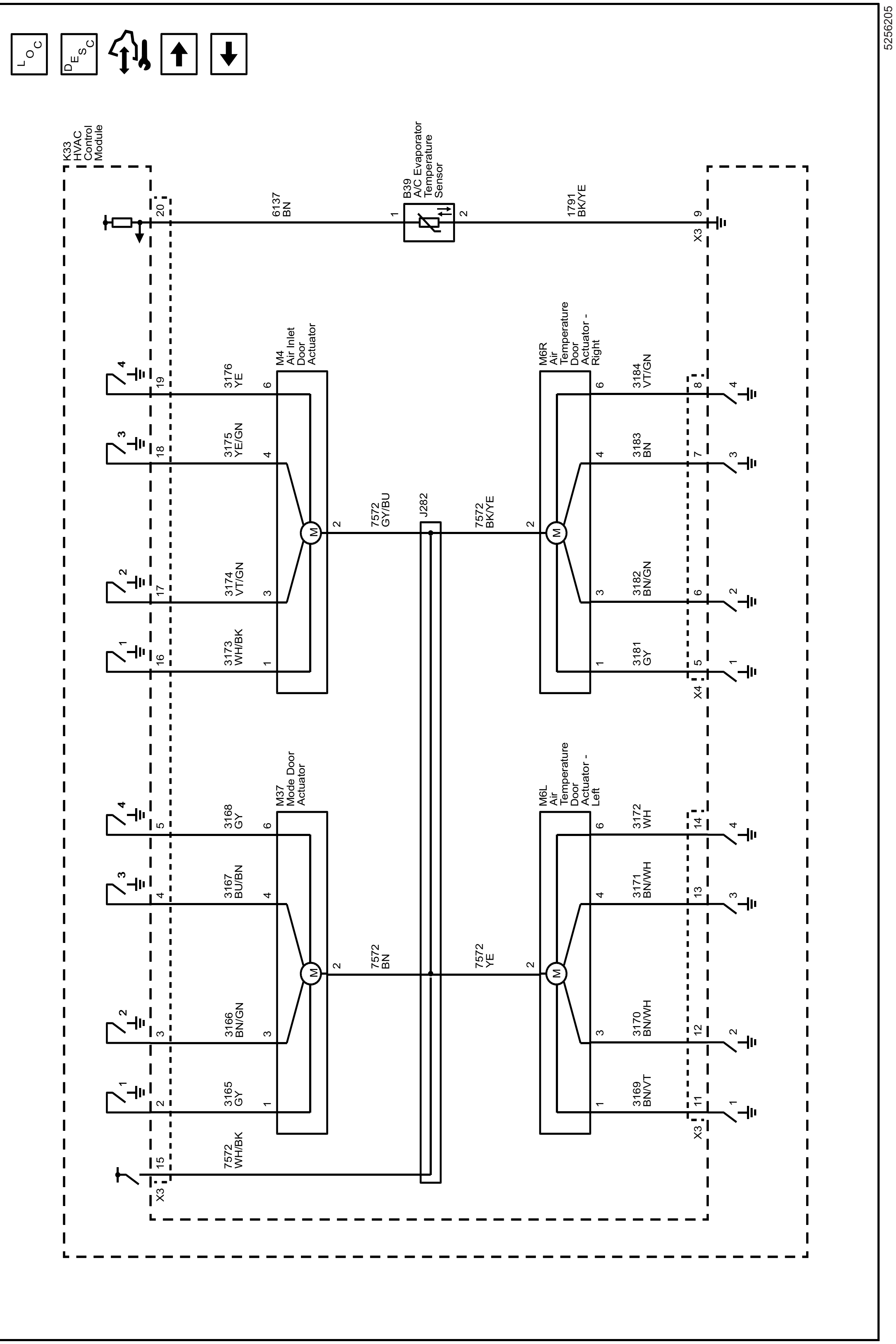
5256192

HVAC Schematics (C4P/C67) (HVAC Controls)


T19
Power Supply
Transformer
2173
RD/GN
B+
X1 21
-KL9
KL9
X51R
Fuse Block -
Instrument
Panel Right
F41DR
10A
X2 47
1340
RD/WH
J235
1340
RD/WH
1
Data
Communication
Schematics
5060
GN
3
7531
GN/YE
9
A26
HVAC
Controls
12V
A90
Logic
MAX
MAX
A/C
A/C
TEMP
10
1851
BK/WH
G200

5256202

HVAC Schematics (C4P/C67) (Temperature and Mode)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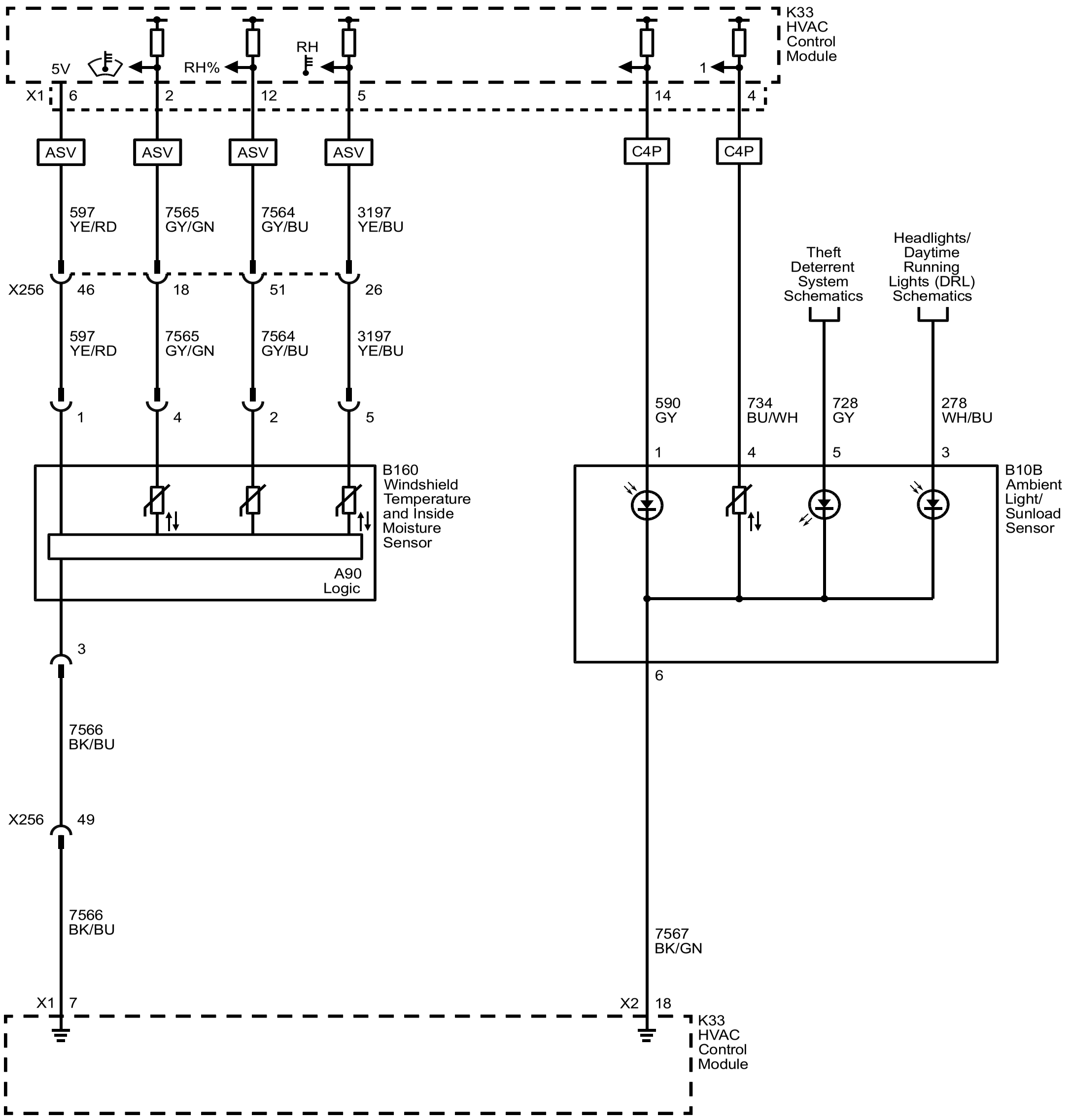
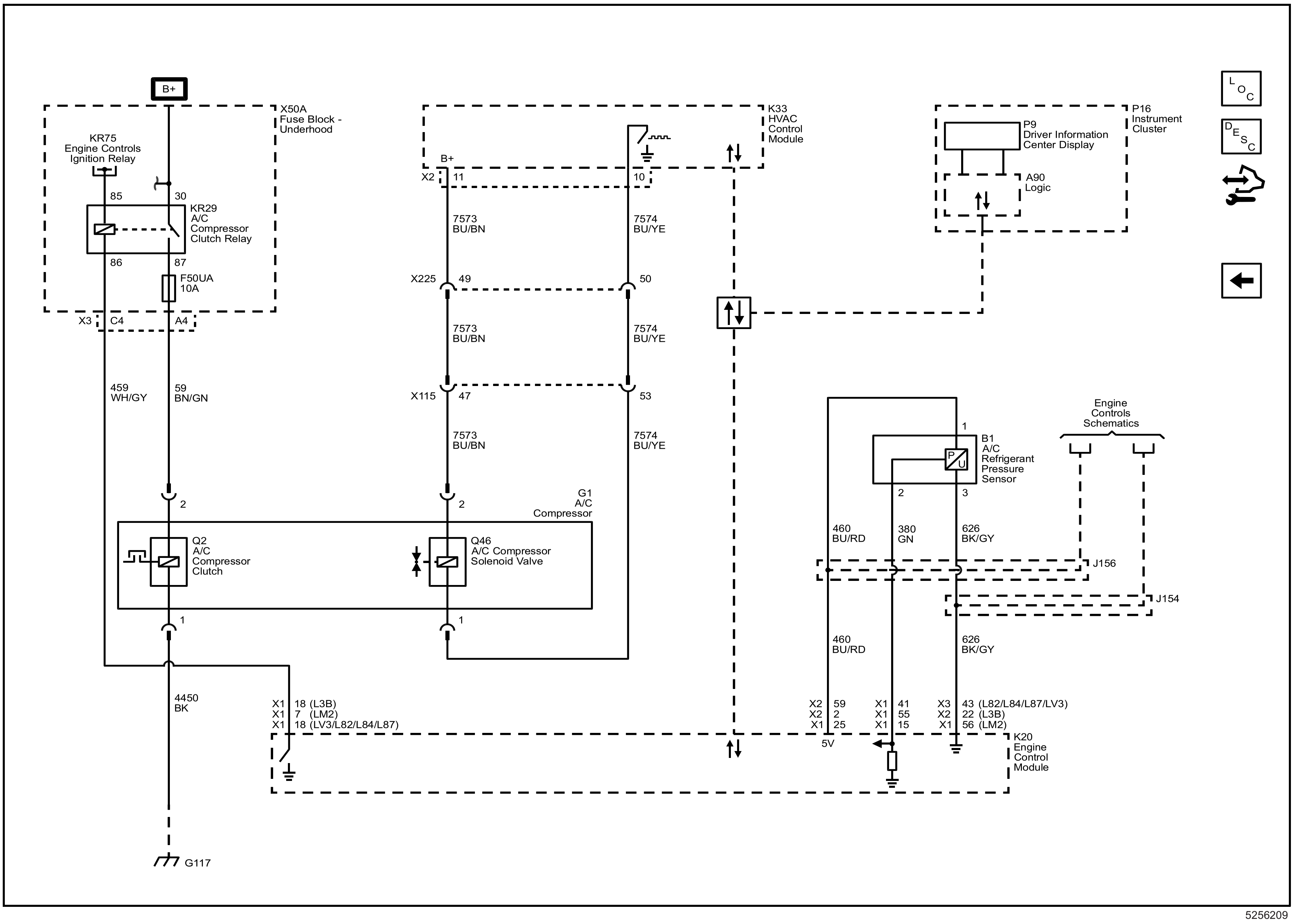
K33 HVAC Control Module
B39 A/C Evaporator Temperature Sensor
6137 BN
1791 BK/YE
20
1
2
9
X3
M4 Air Inlet Door Actuator
3176 YE
3175 YE/GN
3174 VT/GN
3173 WH/BK
19
18
17
16
6
4
3
1
2
M
7572 GY/BU
J282
7572 BK/YE
M6R Air Temperature Door Actuator - Right
3184 VT/GN
3183 BN
3182 BN/GN
3181 GY
8
7
6
5
X4
M37 Mode Door Actuator
3168 GY
3167 BU/BN
3166 BN/GN
3165 GY
5
4
3
2
7572 BN
7572 YE
M6L Air Temperature Door Actuator - Left
3172 WH
3171 BN/WH
3170 BN/WH
3169 BN/VT
14
13
12
11
X3
7572 WH/BK
15
X3

HVAC Schematics (C4P/C67) (Windshield and Sunload Sensors (ASV/C4P))

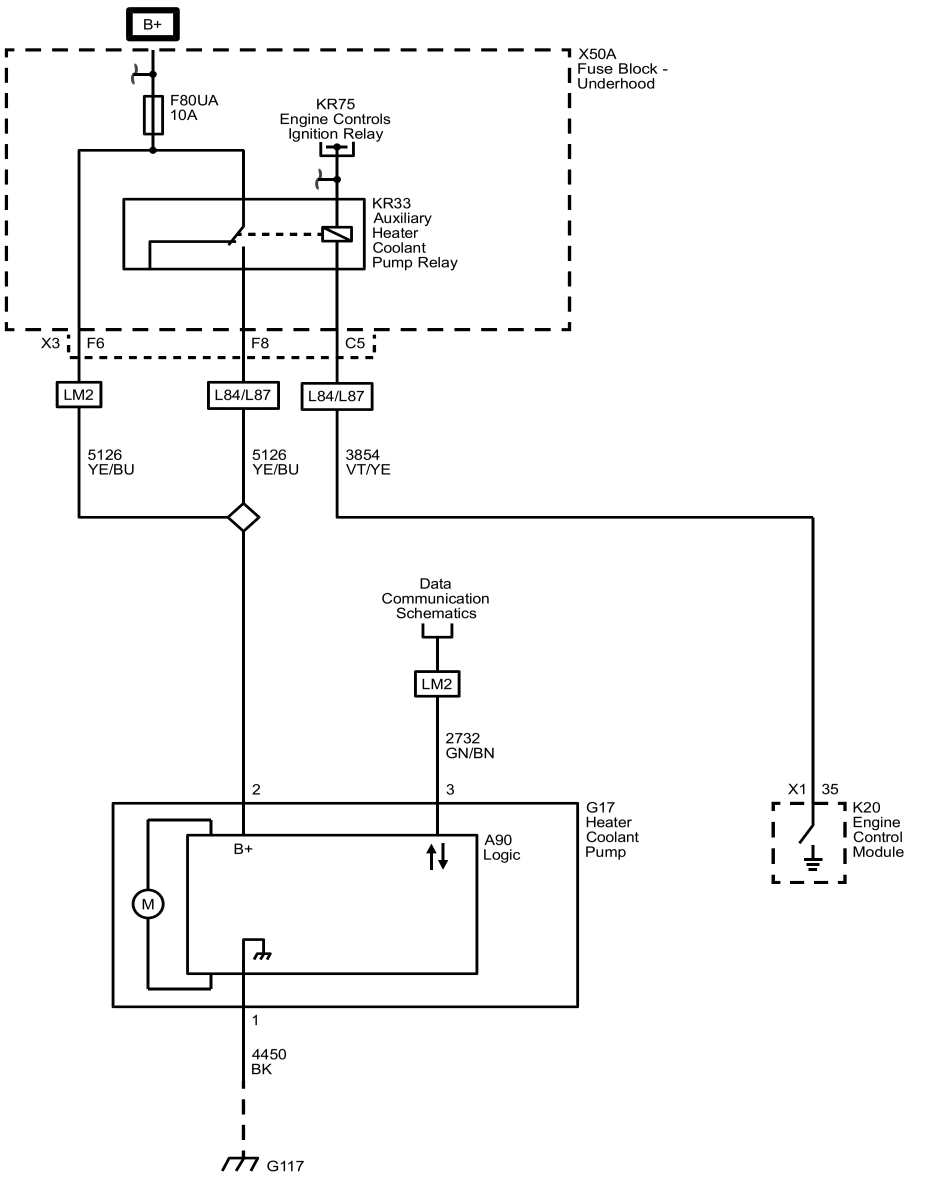

K33
HVAC
Control
Module
5V
RH%
RH
1
X1
6
2
12
5
14
4
ASV
ASV
ASV
ASV
C4P
C4P
597
YE/RD
7565
GY/GN
7564
GY/BU
3197
YE/BU
X256
46
18
51
26
597
YE/RD
7565
GY/GN
7564
GY/BU
3197
YE/BU
1
4
2
5
B160
Windshield
Temperature
and Inside
Moisture
Sensor
A90
Logic
3
7566
BK/BU
X256
49
7566
BK/BU
X1
7
Theft
Deterrent
System
Schematics
Headlights/
Daytime
Running
Lights (DRL)
Schematics
590
GY
734
BU/WH
728
GY
278
WH/BU
1
4
5
3
B10B
Ambient
Light/
Sunload
Sensor
6
7567
BK/GN
X2
18
K33
HVAC
Control
Module

5256207

HVAC Schematics (C4P/C67) (A/C Compressor Controls)

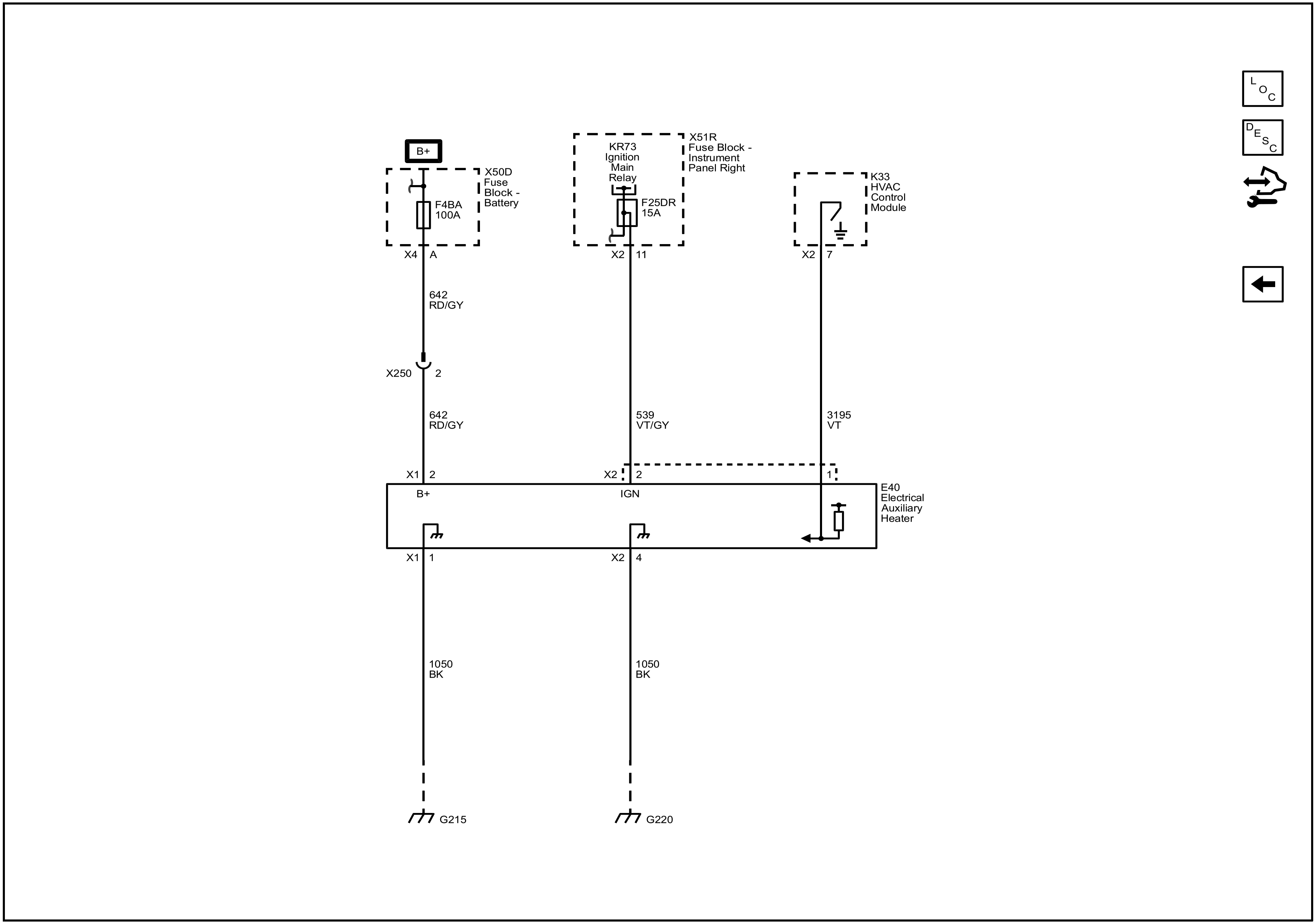

B+
X50A
Fuse Block -
Underhood
KR75
Engine Controls
Ignition Relay
85
30
KR29
A/C
Compressor
Clutch Relay
86
87
F50UA
10A
X3
C4
A4
459
WH/GY
59
BN/GN
K33
HVAC
Control
Module
B+
X2
11
10
7573
BU/BN
7574
BU/YE
X225
49
50
7573
BU/BN
7574
BU/YE
X115
47
53
7573
BU/BN
7574
BU/YE
2
2
G1
A/C
Compressor
Q2
A/C
Compressor
Clutch
Q46
A/C Compressor
Solenoid Valve
1
1
4450
BK
G117
X1 18 (L3B)
X1 7 (LM2)
X1 18 (LV3/L82/L84/L87)
P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
Engine
Controls
Schematics
1
B1
A/C
Refrigerant
Pressure
Sensor
P
U
2
3
460
BU/RD
380
GN
626
BK/GY
J156
J154
460
BU/RD
626
BK/GY
X2 59
X2 2
X1 25
X1 41
X1 55
X1 15
X3 43 (L82/L84/L87/LV3)
X2 22 (L3B)
X1 56 (LM2)
5V
K20
Engine
Control
Module
L O C
D E S C
5256209

HVAC Schematics (C4P/C67) (Heater Coolant Pump (KL9))


B+
X50A
Fuse Block - Underhood
F80UA
10A
KR75
Engine Controls Ignition Relay
KR33
Auxiliary Heater Coolant Pump Relay
X3
F6
F8
C5
LM2
L84/L87
L84/L87
5126
YE/BU
5126
YE/BU
3854
VT/YE
Data Communication Schematics
LM2
2732
GN/BN
2
3
G17
Heater Coolant Pump
B+
A90
Logic
M
1
4450
BK
G117
X1
35
K20
Engine Control Module

5256212

HVAC Schematics (C4P/C67) (Auxiliary Heater (C32))


L O C
D E S C
B+
X50D
Fuse
Block -
Battery
F4BA
100A
X4 A
642
RD/GY
X250 2
642
RD/GY
X1 2
B+
X51R
Fuse Block -
Instrument
Panel Right
KR73
Ignition
Main
Relay
F25DR
15A
X2 11
539
VT/GY
X2 2
IGN
K33
HVAC
Control
Module
X2 7
3195
VT
1
E40
Electrical
Auxiliary
Heater
X1 1
1050
BK
G215
X2 4
1050
BK
G220

5256214

Description and Operation

Manual HVAC Description and Operation

The air temperature and the air delivery description and operation are divided into seven areas:

- HVAC Control Components
- Air Speed
- Air Delivery
- Heating and A/C Operation
- Recirculation Operation
- Engine Coolant and A/C System Refrigerant

HVAC Control Components

HVAC Controls

The HVAC controls contains all switches, buttons, and dials which are required to control the functions of the HVAC system and serve as interface between the operator and the HVAC control module. The selected values are passed to the HVAC control module via LIN-Bus.

HVAC Control Module

The HVAC control module is a GMLAN device that interfaces between the operator and the HVAC system to maintain and control desired air temperature and air distribution settings. The battery positive voltage circuit provides power that the HVAC control module uses for keep alive memory. If the battery positive voltage circuit loses power, all HVAC DTCs and settings will be erased from keep alive memory. The body control module (BCM), which is the vehicle mode master, provides a device ON-Signal. The HVAC control module provides blower, air delivery mode and air temperature settings.

The HVAC control module supports the following features:

Feature	Availability
Afterblow	Yes
Personalization	Yes
Actuator Calibration	Yes

Actuators

Doors in the HVAC case assembly are used to control air flow. The HVAC control module operates the doors through the use of actuators, with one actuator being used for each door. The system has the following air control doors and associated actuators: mode, temperature, and recirculation.

Each actuator used in the system is a 5-wire stepper motor. The HVAC control module supplies a 12 V reference voltage to the stepper motor and energizes the 4 stepper motor coils with a pulsed ground signal. The stepper motor moves the associated air control door into the calculated position in order to reach the selected position. The null point of the stepper motor will be calibrated, if the stepper motor is new. When the stepper motor is calibrated, the HVAC control module can drive the applicable coil to reach exactly the desired position of the air control door.

Blower Motor and Control Module

The blower motor control module varies the speed of the blower motor by varying the voltage to the motor. A battery voltage circuit, ground circuit, and speed request signal circuit from the HVAC control module allow the blower motor control module to operate. The HVAC control module provides a low side pulse width modulation (PWM) signal to the blower motor control module to request a specific motor speed. The blower motor control module translates the PWM signal and drives the motor accordingly.

The blower motor control module has a signal wire used to output a speed signal. The signal is monitored by the BCM, and the value is sent to the ECM via serial data. The ECM monitors the blower motor speed to modify the total commanded engine coolant flow rate, which is a percentage of available coolant flow sent to the heater core for occupant comfort and windshield defrosting. When the HVAC Blower Speed is determined to be zero, the ECM disables the heater core coolant flow to optimize engine coolant flow for fuel economy and emissions.

Evaporator Temperature Sensor

The evaporator temperature sensor is a 2-wire negative temperature co-efficient thermistor. The sensor operates within a temperature range of −40 to +85°C (−40 to +185°F). The sensor is installed at the evaporator and measures its temperature. If the temperature drops under 3°C (38°F), the compressor will be switched off in order to prevent evaporator icing.

A/C Refrigerant Pressure Sensor

The A/C refrigerant pressure sensor is a 3-wire piezoelectric pressure transducer. A 5 V reference voltage, low reference, and signal circuits enable the sensor to operate. The A/C pressure signal can be between 0.2–4.8 V. When the A/C refrigerant pressure is low, the signal value is near 0 V. When the A/C refrigerant pressure is high, the signal value is near 5 V. The engine control module (ECM) converts the voltage signal to a pressure value. When pressure is too high or too low, the ECM will not allow the A/C compressor clutch to engage.

A/C Compressor

The A/C compressor uses a conventional belt driven magnetic clutch to engage and mechanically turn the compressor. When the A/C switch is pressed, the HVAC control module sends an A/C request message to the ECM via serial data. If specific criteria is met, the ECM then grounds the A/C compressor clutch relay control circuit, which will switch the A/C compressor clutch relay. With the relay contacts closed, battery voltage is supplied to the permanently grounded A/C compressor clutch. The A/C compressor clutch will then be activated.

This A/C system utilizes a variable displacement solenoid valve to alter the amount of displacement created by the turning of the compressor. The HVAC control module provides both battery voltage and a pulse width modulated ground to the variable displacement solenoid valve. When the A/C switch is pressed, the HVAC control module grounds the variable displacement solenoid using a (PWM) signal in order to determine the amount of compressor displacement. The performance of the A/C compressor is regulated based on cooling load.

Air Speed

The blower control switch is part of the HVAC controls. The selected value of the blower switch position is sent to the HVAC control module via LIN-Bus. The HVAC control module provides a low side pulse width modulation (PWM) signal to the blower motor control module to request a specific motor speed. The blower motor translates the PWM signal and drives the motor accordingly.

Afterblow

Afterblow is a feature that dries the evaporator core by operating the blower motor after the engine is turned OFF. This reduces the amount of microbial growth that can create undesirable odors. The vehicle does not come equipped with the afterblow feature turned ON. If the afterblow feature is required due to an odor concern, it must be enabled using the scan tool Afterblow configuration function.

After the HVAC control module has been programmed for afterblow, the following conditions must be met for afterblow to operate:

- The engine has been turned OFF for at least 30 minutes.
- The ambient air temperature is at least 21°C (70°F).
- The A/C compressor operated for more than 2 minutes before shut down.
- The system voltage is at least 12 volts.

Once the above conditions have been met, the blower motor will perform the following sequence up to 5 times. This could last up to an hour:

1. The blower motor will be OFF for 7–11 minutes.
2. The blower motor will RUN for 25–30 seconds.

Air Delivery

The HVAC control module controls the distribution of air by the use of recirculation and mode actuator. The modes that may be selected are:

- Defrost
- Defog
- Panel
- Floor

The desired air distribution mode can be selected with the air distribution switches at the HVAC controls. The HVAC controls delivers the values to the HVAC control module via LIN-Bus. The HVAC control module controls the air distribution actuator so that it drives the door to the calculated position. Depending on the position of the door, air is distributed through various ducts leading to the outlets in the dash. Turning the mode door to the defrost position, the HVAC control module will move the recirculation actuator to outside air, reducing window fogging. When defrost is selected, the blower motor will be activated, regardless of the coolant temperature. The HVAC control module enables a high volume of air delivered to the front defrost vents. A/C is available in all modes.

The rear window defogger does not affect the HVAC system.

Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. Regardless of the temperature setting, the following can affect the rate that the HVAC system can achieve the desired temperature:

- Recirculation actuator setting
- Difference between inside and desired temperature
- Blower motor speed setting
- Mode setting

When the A/C switch is pressed, the HVAC controls sends a signal to the HVAC control module via LIN-Bus. The HVAC control module evaluates this signal and sends an A/C request signal to the ECM via CAN-Bus. The ECM checks all preconditions before releasing and if all conditions are met sends a release signal back to the HVAC control module. The ECM will provide a ground for the A/C compressor relay enabling it to close its internal contacts to send battery voltage to the A/C compressor clutch coil. The A/C compressor clutch will be activated. The performance of the A/C compressor is regulated via a variable A/C compressor solenoid valve. The HVAC control module supplies battery voltage to the A/C compressor. When the A/C switch is pressed, the HVAC control module provides a pulse width modulation (PWM) signal to the A/C compressor solenoid valve in order to command the performance of the A/C compressor.

The following conditions must be met in order to activate the A/C compressor:

- Battery voltage is between 9–18 V
- Engine coolant temperature is less than 124°C (255°F)
- Engine speed is greater than 600 RPM
- Engine speed is less than 5 500 RPM
- A/C high side pressure is between 269–2 929 kPa (39–425 PSI)
- Throttle position is less than 100%
- Evaporator temperature is greater than 3°C (38°F)
- ECM does not detect immoderate torque load
- ECM does not detect insufficient idle quality
- The ambient temperature is above 1°C (34°F)

The sensor information is used by the ECM to determine the following:

- The A/C high side pressure
- An A/C system load on the engine
- An immoderate A/C high side pressure
- The heat load at the A/C condenser

The air streams into the passenger compartment through the heater core and the evaporator core. The air temperature actuator drives the mixed air door to induce the airflow. If the interior temperature should be increased, the mixed air door is put into the position in which more air streams through the heater core. If the interior temperature should be decreased, the mixed air door is put into the position in which more air streams through the evaporator core.

Recirculation Operation

The recirculation switch is integrated into the HVAC control. The selected recirculation setting is sent to the HVAC control module via LIN-Bus. The HVAC control module controls the air intake using the recirculation actuator. In recirculation mode the recirculation door is positioned to block outside air from entering and circulate the air within the vehicle. In outside air mode the recirculation door is positioned to route outside air into the vehicle.

Recirculation is only available if the defrost mode is not active. When the defrost mode is active, the recirculation actuator positions the recirculation door so that outside air is circulated to the windshield to reduce fogging.

Electric Auxiliary Heater

Some models are equipped with an auxiliary electric heater to assist in warming the passenger compartment when the engine coolant has not sufficiently warmed to operating temperature. The heater is a 12 V positive temperature coefficient heating element located in the HVAC case just downstream of the traditional heater core. The HVAC control module will activate it when the outside temperature is less than approximately 8°C (46°F), the engine coolant temperature is less than approximately 75°C (167°F), and the temperature blend door is commanded to the full hot position.

Engine Coolant and A/C System Refrigerant

For information on engine coolant, coolant flow, A/C refrigerant, and the A/C refrigerant cycle, refer to Heating and Air Conditioning System Description and Operation.

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Section 7

Power and Signal Distribution

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    Data Communication Schematics 7-4
    Body Control System Schematics 7-20
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    Power Moding Schematics 7-715
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    Ground Distribution Schematics 7-721
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    Power Mode Description and Operation (Without BTM and/or ATH/ATS) 7-750
    Power Mode Description and Operation (BTM and/or ATH/ATS) 7-752
    Retained Accessory Power Description and Operation 7-755
    Trailering Description and Operation 7-756

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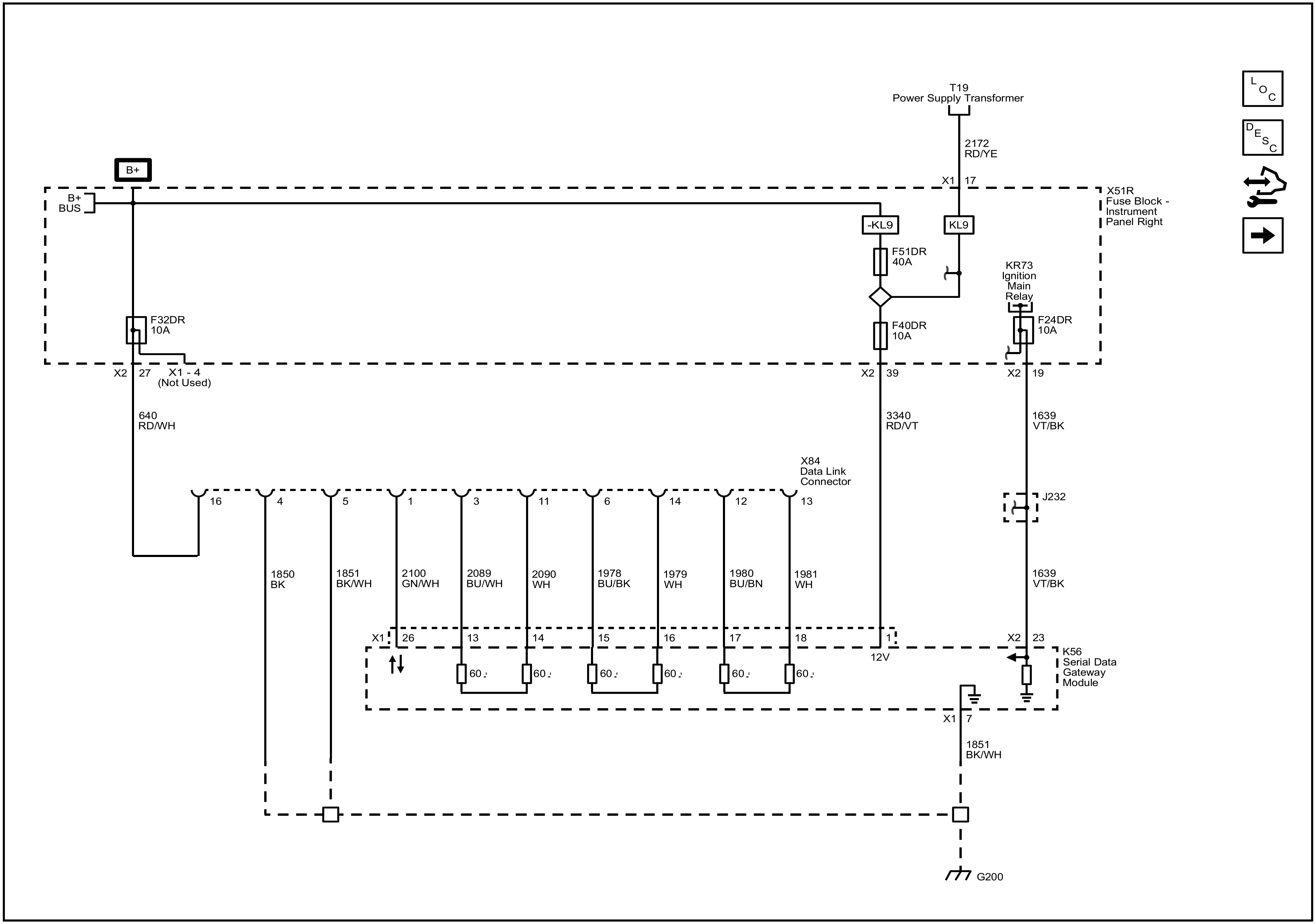
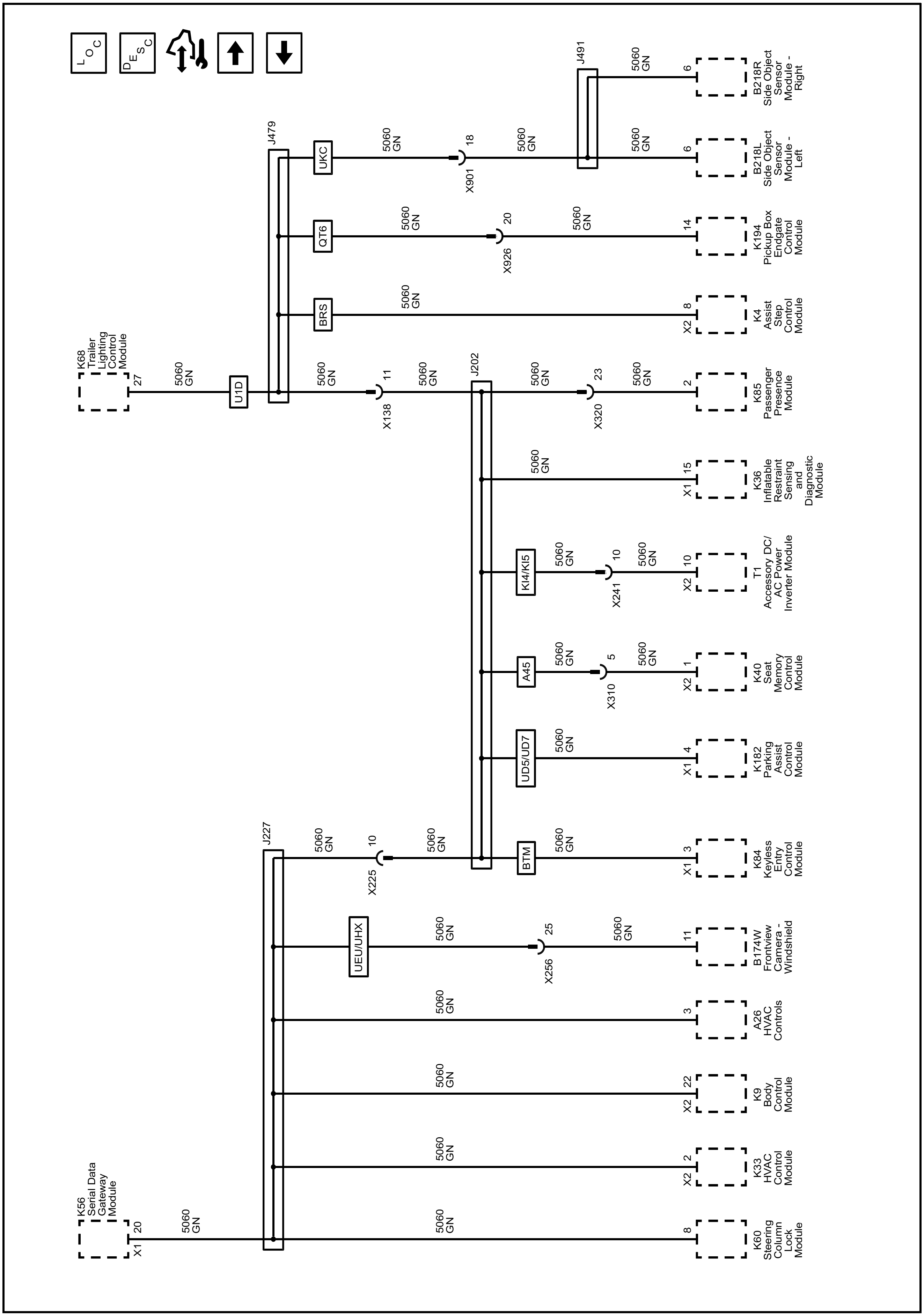
Data Communications

Schematic and Routing Diagrams

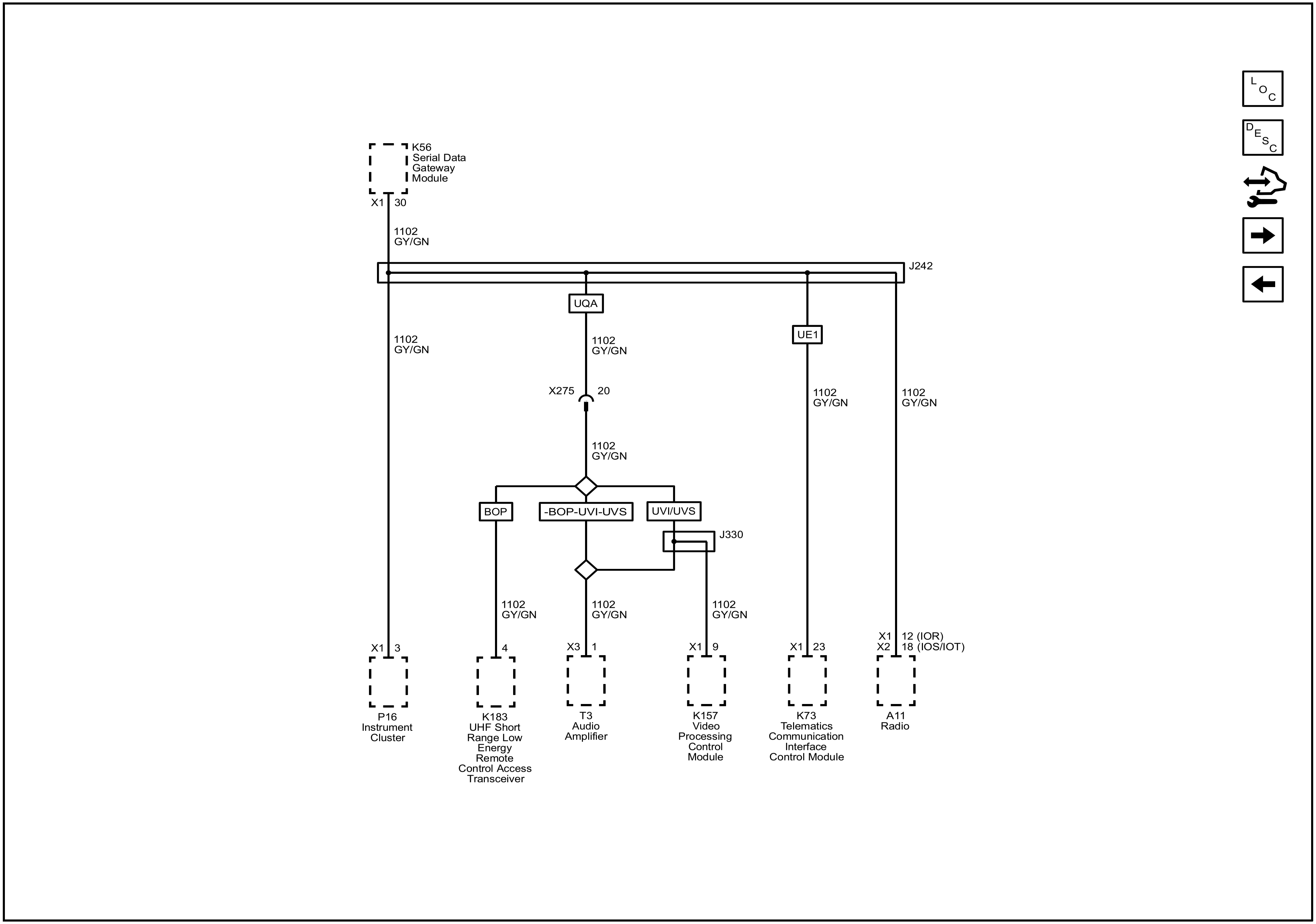
Data Communication Schematics (Data Link Connector and Serial Data Gateway Module Power and Ground)


LOC
DESC
T19
Power Supply Transformer
2172
RD/YE
X1 17
B+
B+
BUS
X51R
Fuse Block - Instrument Panel Right
-KL9
KL9
F51DR
40A
KR73
Ignition
Main
Relay
F32DR
10A
F40DR
10A
F24DR
10A
X2 27
X1 - 4
(Not Used)
X2 39
X2 19
640
RD/WH
3340
RD/VT
1639
VT/BK
X84
Data Link
Connector
J232
16
4
5
1
3
11
6
14
12
13
1850
BK
1851
BK/WH
2100
GN/WH
2089
BU/WH
2090
WH
1978
BU/BK
1979
WH
1980
BU/BN
1981
WH
1639
VT/BK
X1
26
13
14
15
16
17
18
1
X2 23
12V
60 Ω
60 Ω
60 Ω
60 Ω
60 Ω
60 Ω
K56
Serial Data
Gateway
Module
X1 7
1851
BK/WH
G200
5256215

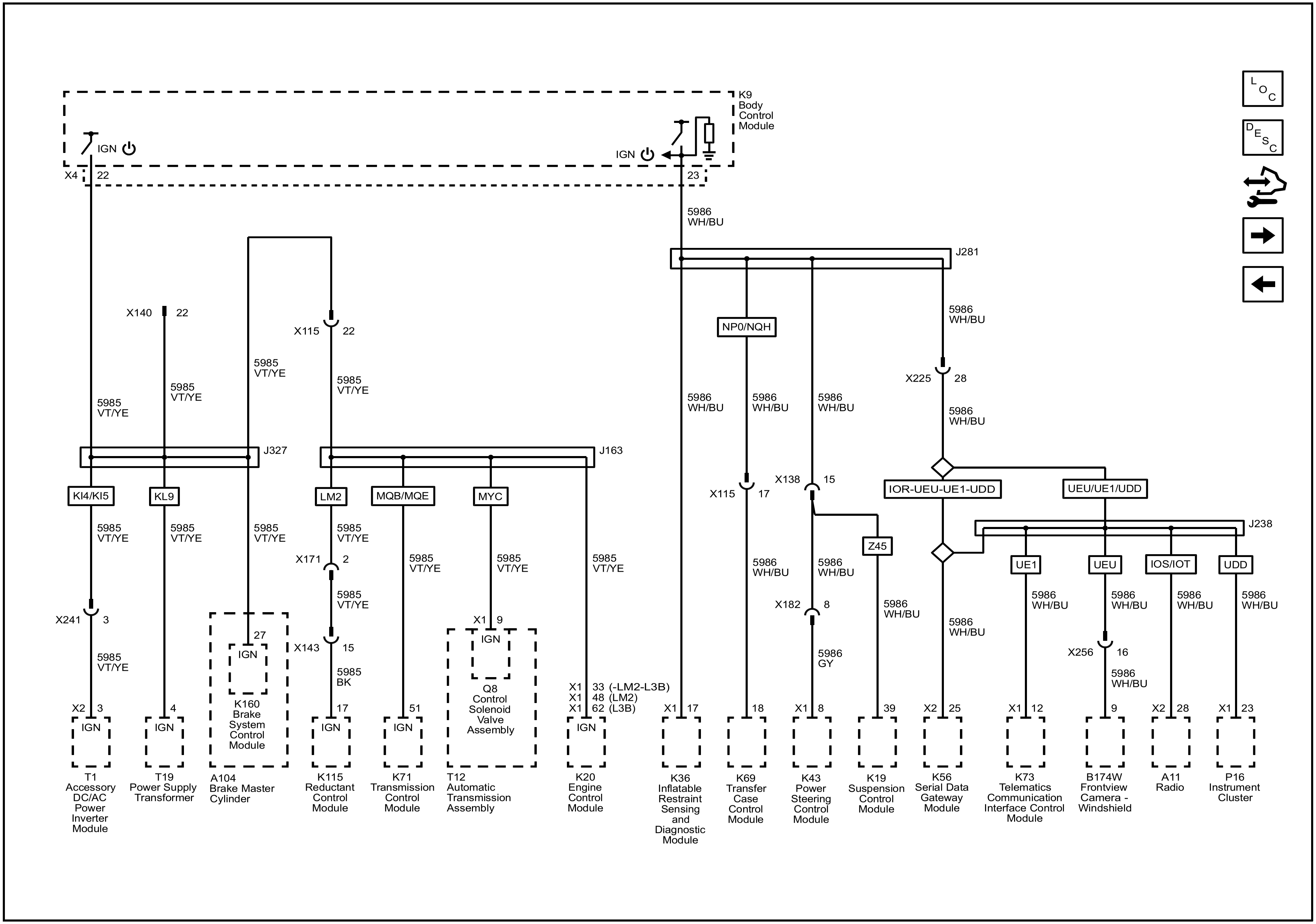
Data Communication Schematics (Low Speed GMLAN)


5256217
K68 Trailer Lighting Control Module
27
U1D
J479
UKC
QT6
BRS
X901
18
X926
20
X138
11
J202
X320
23
J491
5060 GN
B218R Side Object Sensor Module - Right
6
B218L Side Object Sensor Module - Left
6
K194 Pickup Box Endgate Control Module
14
K4 Assist Step Control Module
X2 8
K85 Passenger Presence Module
2
K36 Inflatable Restraint Sensing and Diagnostic Module
X1 15
KI4/KI5
X241
10
T1 Accessory DC/AC Power Inverter Module
X2 10
A45
X310
5
K40 Seat Memory Control Module
X2 1
UD5/UD7
K182 Parking Assist Control Module
X1 4
J227
X225
10
BTM
K84 Keyless Entry Control Module
X1 3
UEU/UHX
X256
25
B174W Frontview Camera - Windshield
11
A26 HVAC Controls
3
K9 Body Control Module
X2 22
K33 HVAC Control Module
X2 2
K56 Serial Data Gateway Module
X1 20
K60 Steering Column Lock Module
8

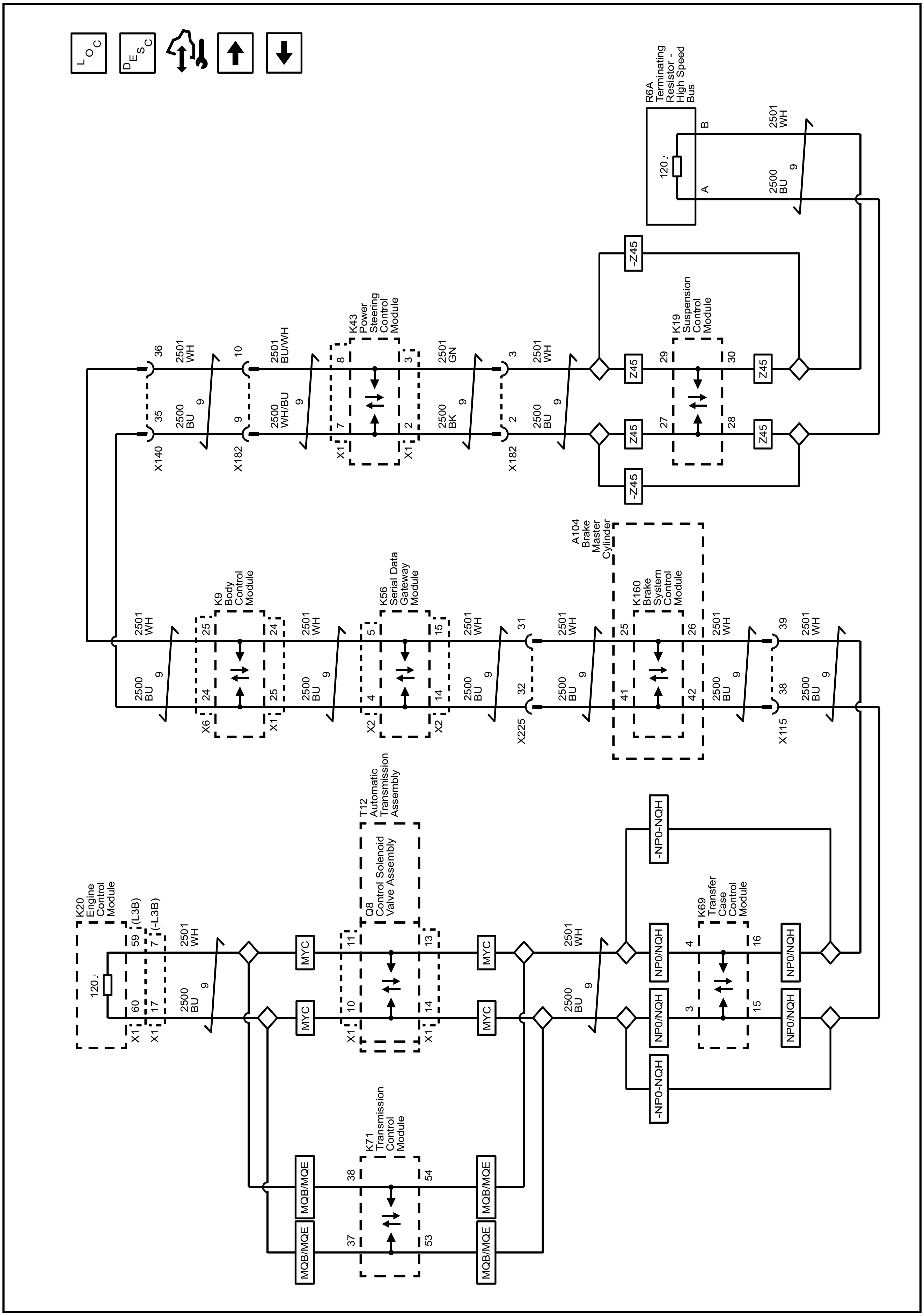
Data Communication Schematics (Gateway Isolated Low Speed GMLAN)


K56
Serial Data
Gateway
Module
X1 30
1102
GY/GN
J242
UQA
UE1
1102
GY/GN
X275 20
BOP
-BOP-UVI-UVS
UVI/UVS
J330
X1 3
4
X3 1
X1 9
X1 23
X1 12 (IOR)
X2 18 (IOS/IOT)
P16
Instrument
Cluster
K183
UHF Short
Range Low
Energy
Remote
Control Access
Transceiver
T3
Audio
Amplifier
K157
Video
Processing
Control
Module
K73
Telematics
Communication
Interface
Control Module
A11
Radio
5256219

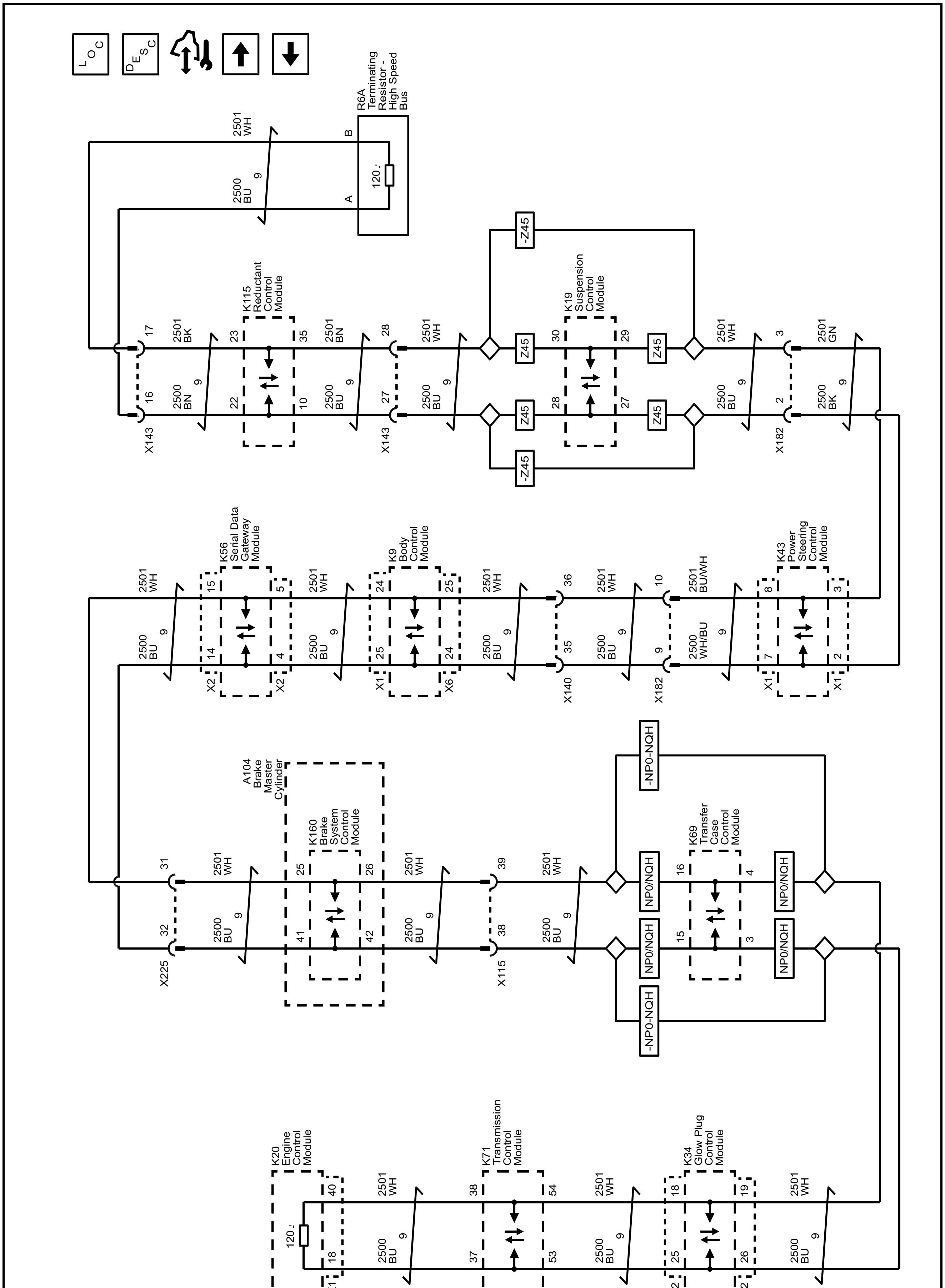
Data Communication Schematics (Communications Enable - High Speed GMLAN)


K9 Body Control Module
IGN
X4 22
IGN
23
5986 WH/BU
J281
NP0/NQH
X225 28
X115 17
X138 15
X182 8
5986 GY
Z45
IOR-UEU-UE1-UDD
UEU/UE1/UDD
J238
UE1
UEU
IOS/IOT
UDD
X256 16
X140 22
X115 22
5985 VT/YE
5985 BK
J327
J163
KI4/KI5
KL9
LM2
MQB/MQE
MYC
X241 3
X171 2
X143 15
X1 9
27
X1 33 (-LM2-L3B)
X1 48 (LM2)
X1 62 (L3B)
X2 3
4
17
51
X1 17
18
X1 8
39
X2 25
X1 12
9
X2 28
X1 23
T1 Accessory DC/AC Power Inverter Module
T19 Power Supply Transformer
K160 Brake System Control Module
A104 Brake Master Cylinder
K115 Reductant Control Module
K71 Transmission Control Module
Q8 Control Solenoid Valve Assembly
T12 Automatic Transmission Assembly
K20 Engine Control Module
K36 Inflatable Restraint Sensing and Diagnostic Module
K69 Transfer Case Control Module
K43 Power Steering Control Module
K19 Suspension Control Module
K56 Serial Data Gateway Module
K73 Telematics Communication Interface Control Module
B174W Frontview Camera - Windshield
A11 Radio
P16 Instrument Cluster
LOC
DESC
5256223

Data Communication Schematics (High Speed GMLAN (-LM2))

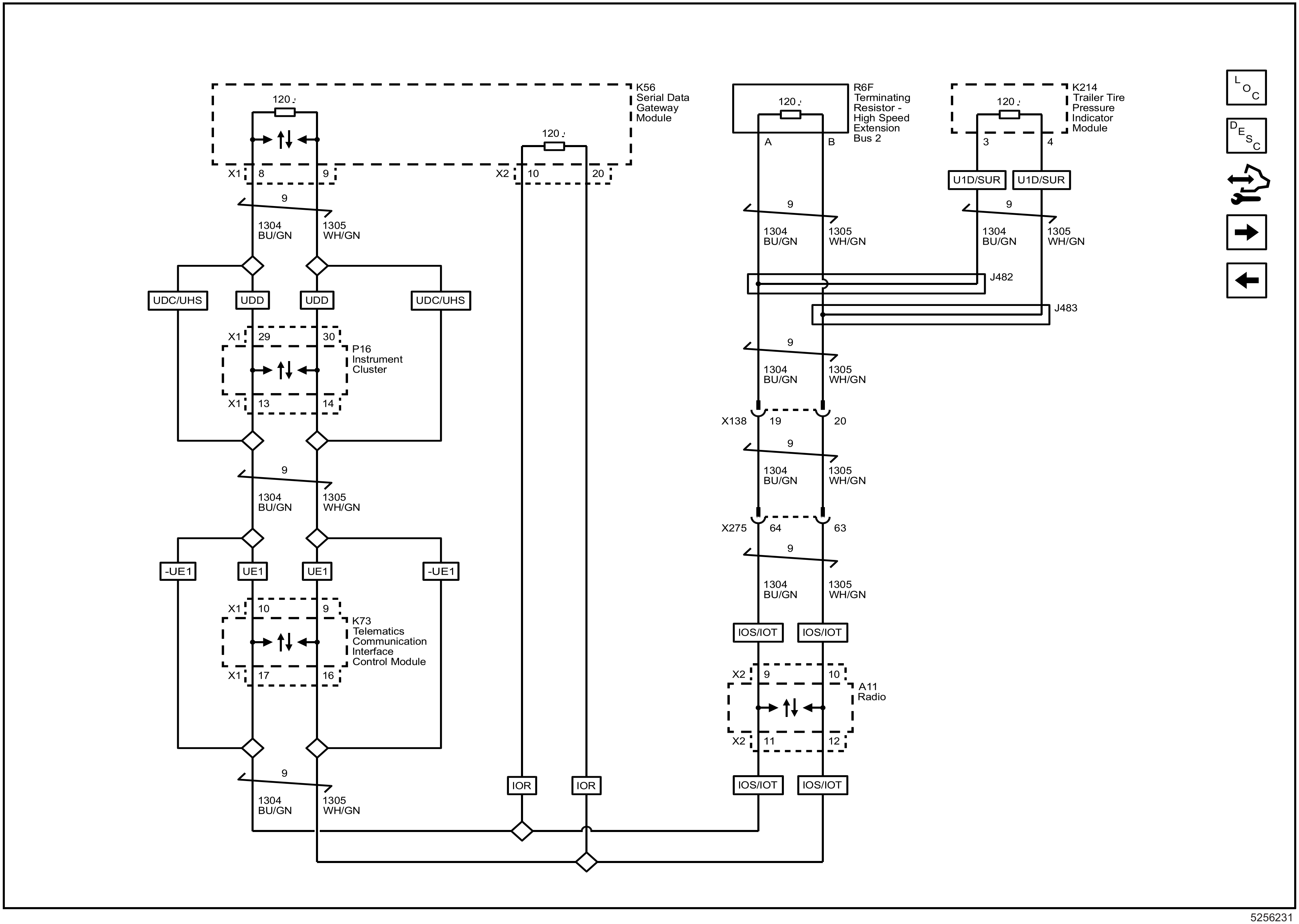

5256225
LOC
DESC
K20 Engine Control Module
120 Ω
X1 59 (L3B)
X1 60
X1 7 (-L3B)
X1 17
2501 WH
2500 BU 9
MYC
Q8 Control Solenoid Valve Assembly
T12 Automatic Transmission Assembly
X1 11
X1 10
X1 13
X1 14
K71 Transmission Control Module
38
37
54
53
MQB/MQE
K69 Transfer Case Control Module
4
3
16
15
NP0/NQH
-NP0-NQH
K9 Body Control Module
X6 25
X6 24
X1 24
X1 25
K56 Serial Data Gateway Module
X2 5
X2 4
X2 15
X2 14
X225 31
X225 32
A104 Brake Master Cylinder
K160 Brake System Control Module
25
41
26
42
X115 39
X115 38
X140 36
X140 35
X182 10
X182 9
2501 BU/WH
2500 WH/BU 9
K43 Power Steering Control Module
X1 8
X1 7
X1 3
X1 2
2501 GN
2500 BK 9
X182 3
X182 2
K19 Suspension Control Module
29
27
30
28
Z45
-Z45
R6A Terminating Resistor - High Speed Bus
120 Ω
A
B

Data Communication Schematics (High Speed GMLAN (LM2))

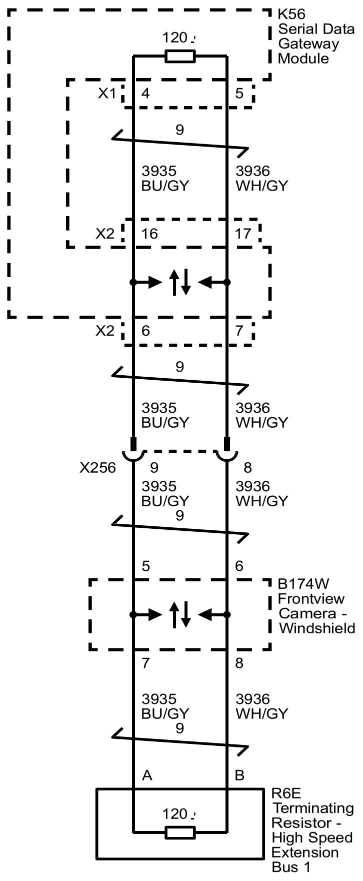

L O C
D E S C
R6A Terminating Resistor - High Speed Bus
120Ω
A
B
2500 BU 9
2501 WH
K115 Reductant Control Module
X143
16
17
2500 BN 9
2501 BK
22
23
10
35
2500 BU 9
2501 BN
27
28
2500 BU 9
2501 WH
Z45
-Z45
K19 Suspension Control Module
28
30
27
29
2500 BU 9
2501 WH
X182
2
3
2500 BK 9
2501 GN
K56 Serial Data Gateway Module
X2
14
15
4
5
2500 BU 9
2501 WH
K9 Body Control Module
X1
25
24
X6
24
25
X140
35
36
9
10
2500 WH/BU 9
2501 BU/WH
K43 Power Steering Control Module
X1
7
8
2
3
X225
32
31
A104 Brake Master Cylinder
K160 Brake System Control Module
41
25
42
26
X115
38
39
NP0/NQH
-NP0-NQH
K69 Transfer Case Control Module
15
16
3
4
K20 Engine Control Module
X1
18
40
K71 Transmission Control Module
37
38
53
54
K34 Glow Plug Control Module
X2
25
18
26
19

5256228

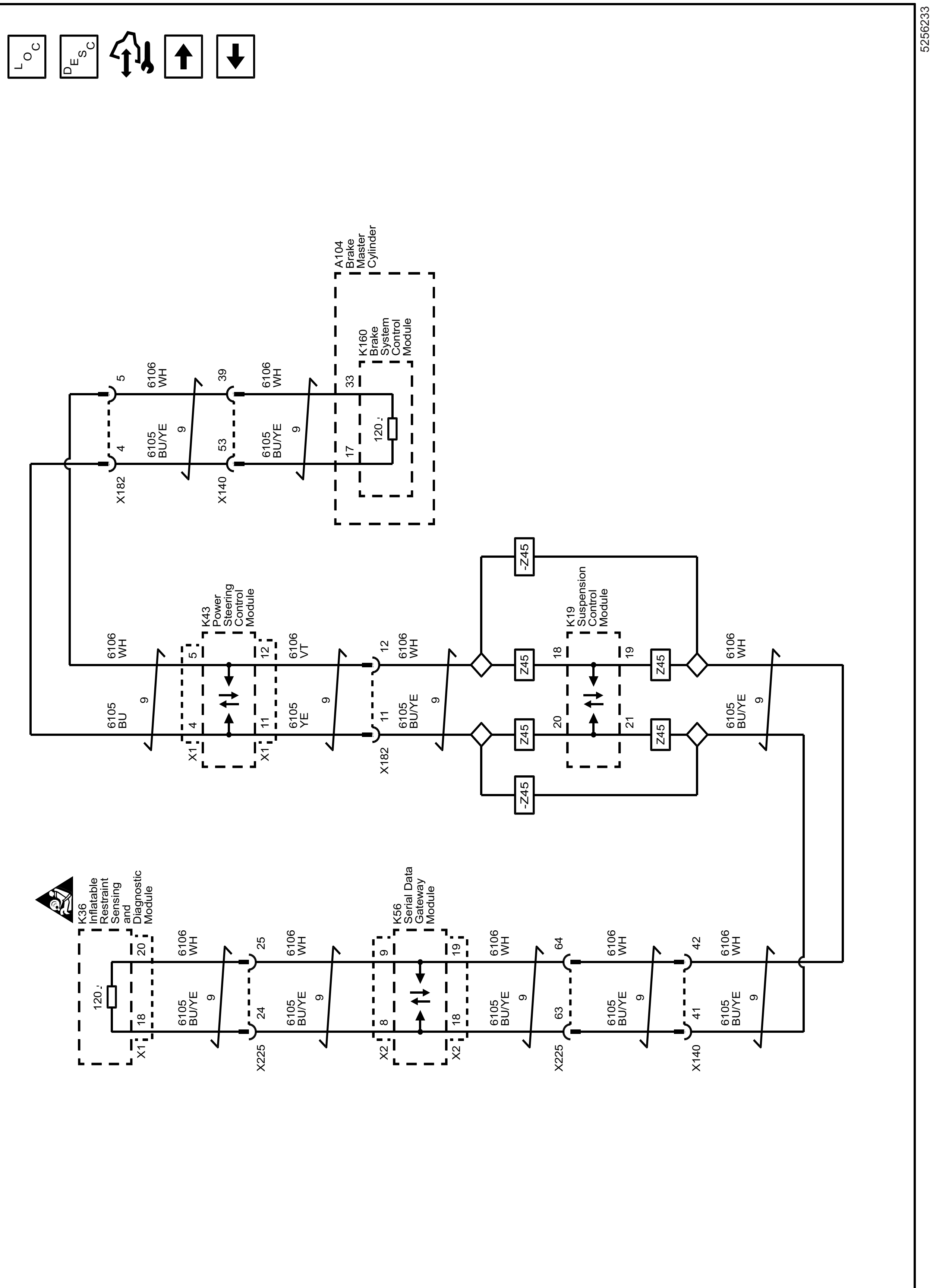
Data Communication Schematics (Gateway Isolated High Speed GMLAN)


K56 Serial Data Gateway Module
120 Ω
X1 8 9
X2 10 20
9
1304 BU/GN
1305 WH/GN
UDC/UHS
UDD
UDD
UDC/UHS
P16 Instrument Cluster
X1 29 30
X1 13 14
-UE1
UE1
UE1
-UE1
K73 Telematics Communication Interface Control Module
X1 10 9
X1 17 16
IOR
IOR
R6F Terminating Resistor - High Speed Extension Bus 2
A B
K214 Trailer Tire Pressure Indicator Module
3 4
U1D/SUR
U1D/SUR
J482
J483
X138 19 20
X275 64 63
IOS/IOT
IOS/IOT
A11 Radio
X2 9 10
X2 11 12
5256231

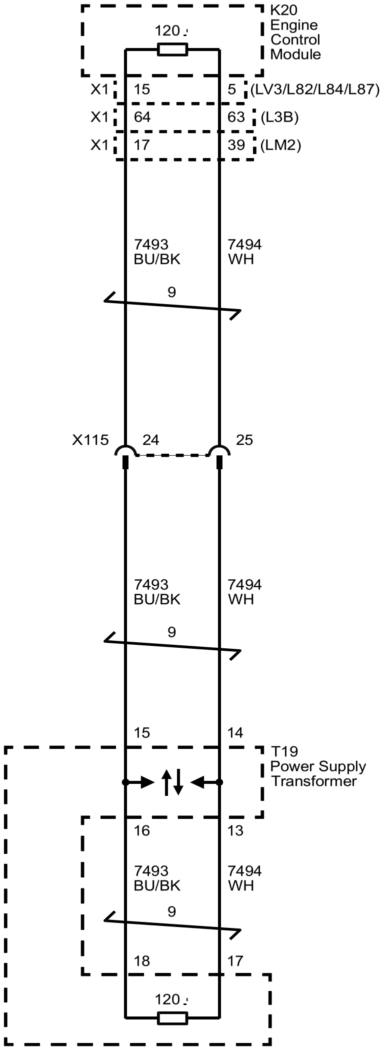
Data Communication Schematics (Gateway Expansion High Speed GMLAN (UEU/UHX))


K56
Serial Data
Gateway
Module
120 Ω
X1
4
5
9
3935
BU/GY
3936
WH/GY
X2
16
17
X2
6
7
9
3935
BU/GY
3936
WH/GY
X256
9
8
3935
BU/GY
3936
WH/GY
9
5
6
B174W
Frontview
Camera -
Windshield
7
8
3935
BU/GY
3936
WH/GY
9
A
B
R6E
Terminating
Resistor -
High Speed
Extension
Bus 1
120 Ω
5256232

Data Communication Schematics (Chassis High Speed GMLAN)

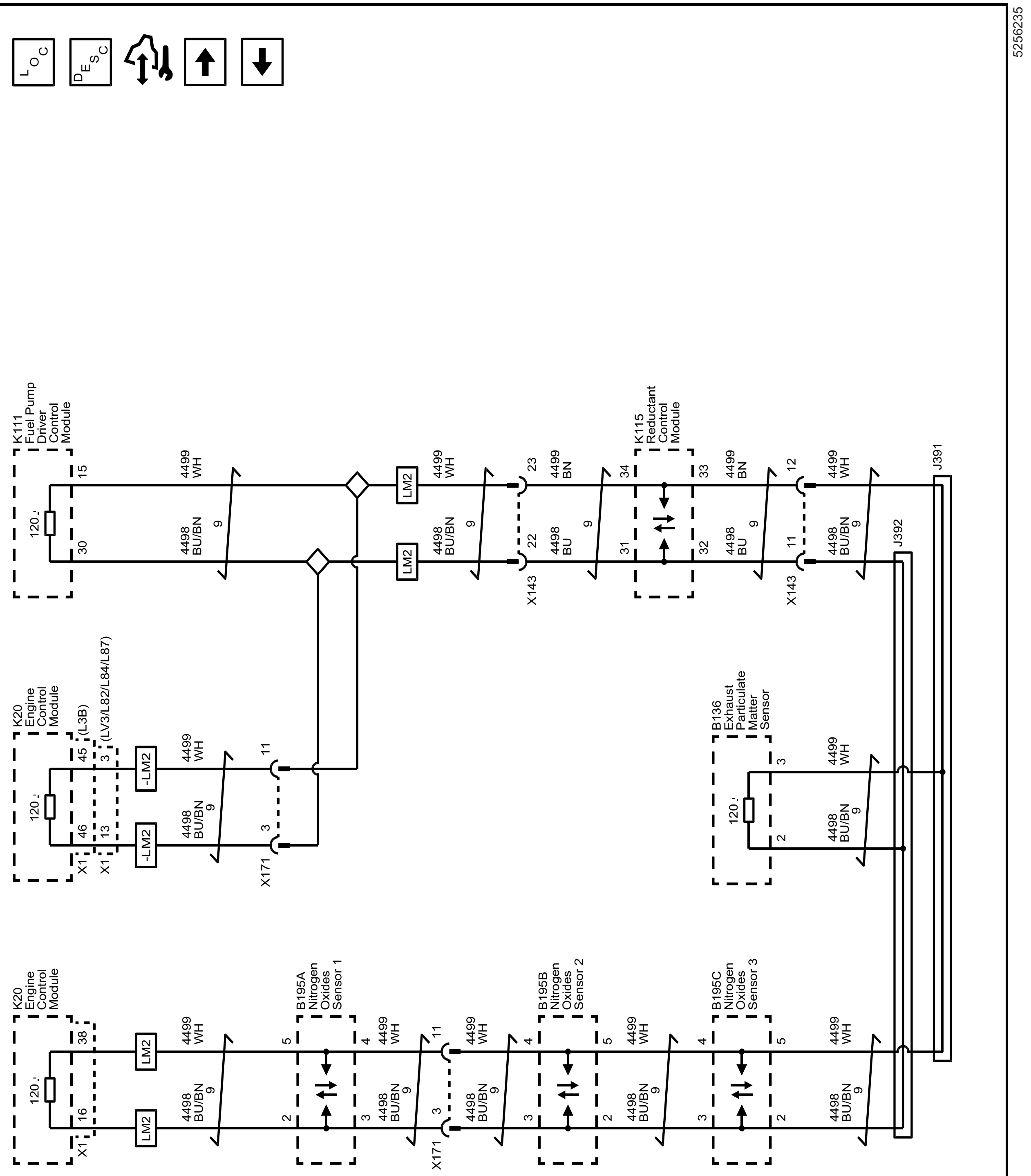

5256233
LOC
DESC
A104 Brake Master Cylinder
K160 Brake System Control Module
120 Ω
33
17
X182
5
4
X140
39
53
6106 WH
6105 BU/YE
6105 BU
6106 VT
6105 YE
9
K43 Power Steering Control Module
X1
5
4
12
11
X182
12
11
K19 Suspension Control Module
18
19
20
21
Z45
-Z45
K36 Inflatable Restraint Sensing and Diagnostic Module
X1
20
18
X225
25
24
K56 Serial Data Gateway Module
X2
9
8
19
18
X225
64
63
X140
42
41

Data Communication Schematics (Powertrain High Speed GMLAN (KL9))

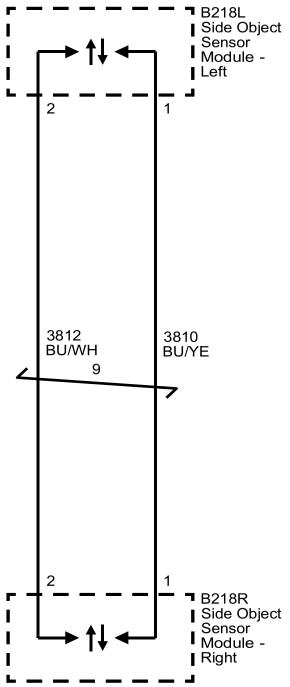

K20
Engine
Control
Module
120 Ω
X1 15 5 (LV3/L82/L84/L87)
X1 64 63 (L3B)
X1 17 39 (LM2)
7493
BU/BK
7494
WH
9
X115 24 25
7493
BU/BK
7494
WH
9
15 14
T19
Power Supply
Transformer
16 13
7493
BU/BK
7494
WH
9
18 17
120 Ω

5256234

Data Communication Schematics (Powertrain Sensor High Speed GMLAN)


5256235
K111 Fuel Pump Driver Control Module
120 Ω
15
30
4499 WH
4498 BU/BN 9
LM2
K20 Engine Control Module
X1 (L3B)
X1 (LV3/L82/L84/L87)
45
46
3
13
-LM2
11
3
X171
23
22
X143
4499 BN
4498 BU
K115 Reductant Control Module
34
31
33
32
12
11
B136 Exhaust Particulate Matter Sensor
2
J391
J392
B195A Nitrogen Oxides Sensor 1
B195B Nitrogen Oxides Sensor 2
B195C Nitrogen Oxides Sensor 3
38
16
5
4

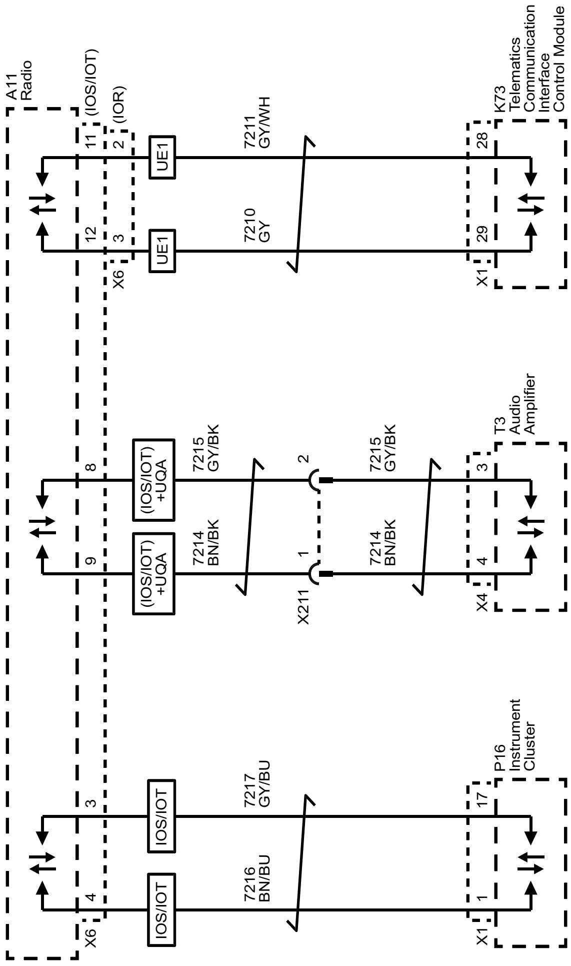
Data Communication Schematics (Object High Speed GMLAN (UKC))


B218L
Side Object
Sensor
Module -
Left
2
1
3812
BU/WH
9
3810
BU/YE
2
1
B218R
Side Object
Sensor
Module -
Right

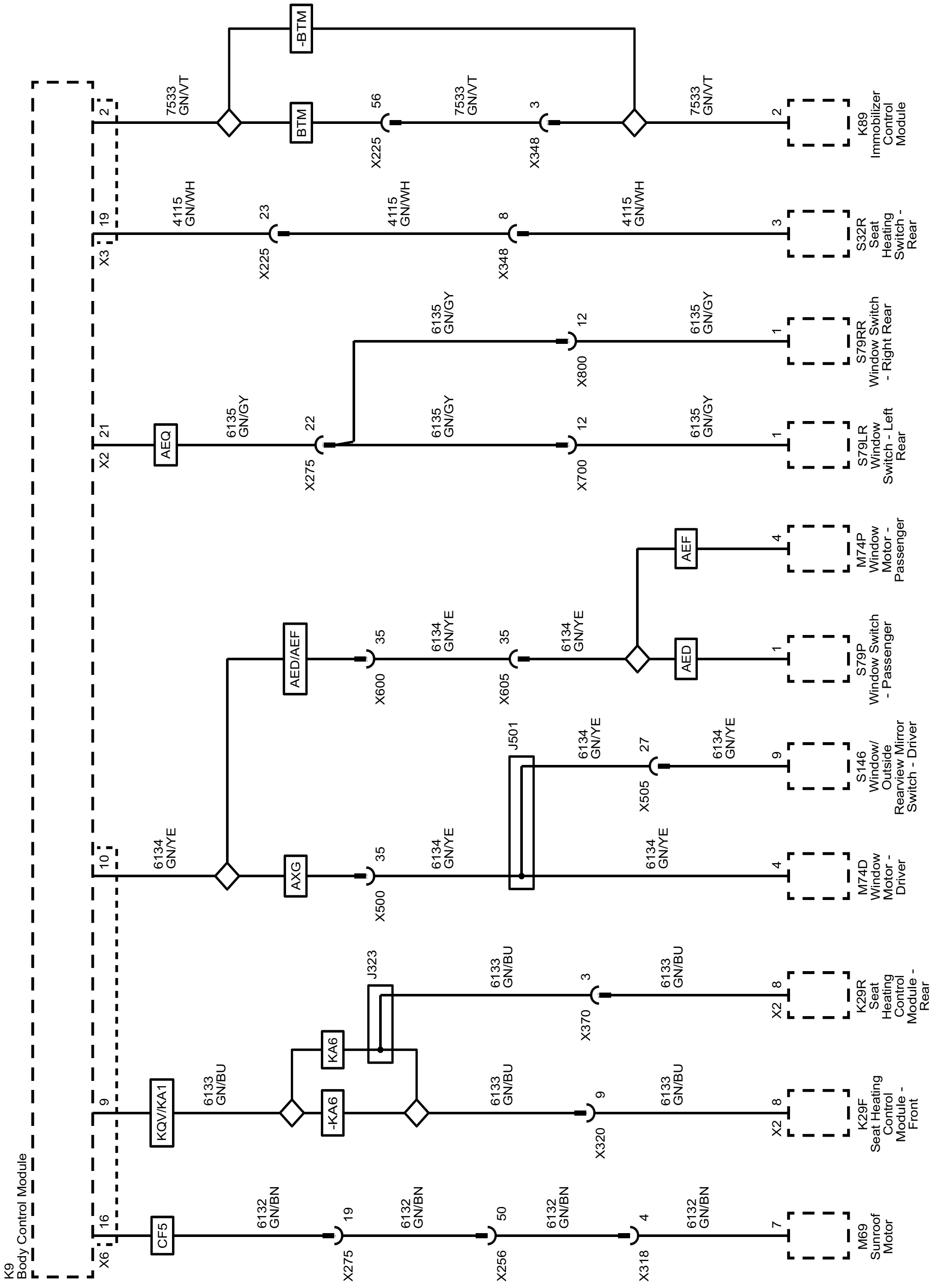
5256236

5256237

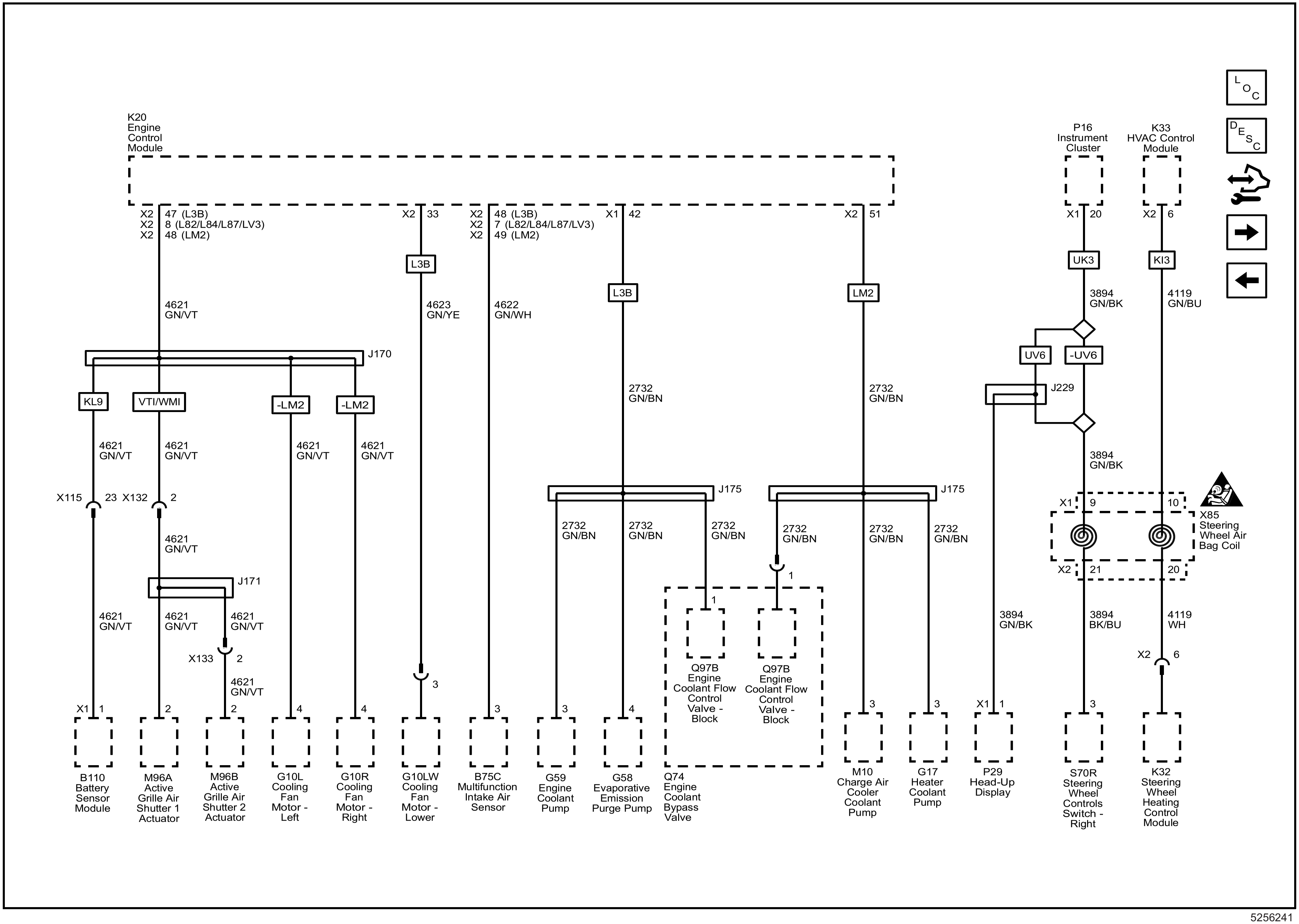
Data Communication Schematics (Ethernet Bus)


A11
Radio
(IOS/IOT)
(IOR)
11
2
12
3
X6
UE1
UE1
7211
GY/WH
7210
GY
28
29
X1
K73
Telematics
Communication
Interface
Control Module
8
9
(IOS/IOT)
+UQA
(IOS/IOT)
+UQA
7215
GY/BK
7214
BN/BK
2
1
X211
7215
GY/BK
7214
BN/BK
3
4
X4
T3
Audio
Amplifier
3
4
X6
IOS/IOT
IOS/IOT
7217
GY/BU
7216
BN/BU
17
1
X1
P16
Instrument
Cluster

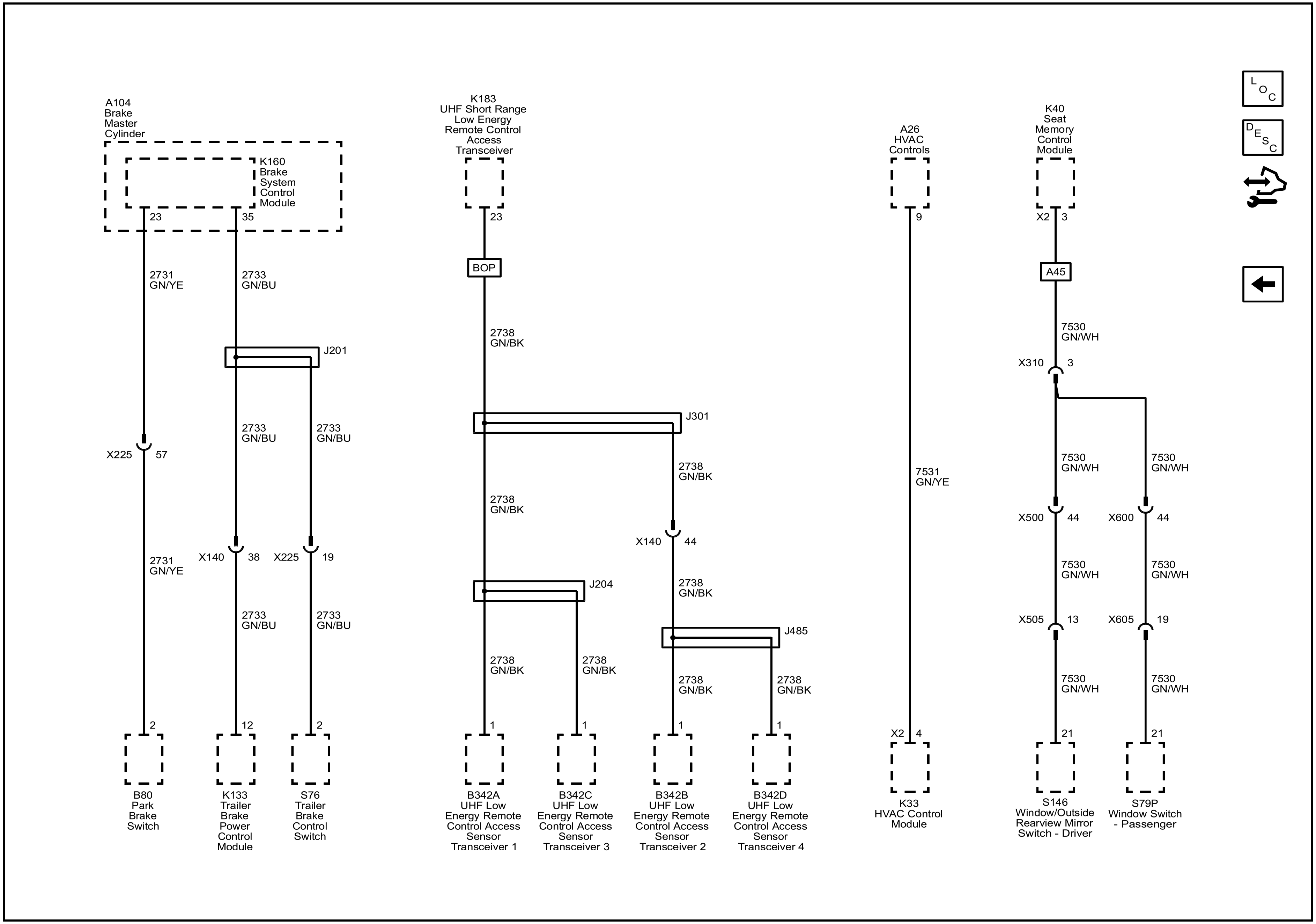
Data Communication Schematics (Local Interconnect Network (1 of 3))


K9
Body Control Module
X6
16
CF5
6132
GN/BN
19
X275
50
X256
4
X318
7
M69
Sunroof
Motor
9
KQV/KA1
6133
GN/BU
-KA6
KA6
J323
3
X370
X320
8
X2
K29F
Seat Heating
Control
Module -
Front
K29R
Seat
Heating
Control
Module -
Rear
10
6134
GN/YE
AXG
35
X500
J501
27
X505
4
M74D
Window
Motor -
Driver
9
S146
Window/
Outside
Rearview Mirror
Switch - Driver
AED/AEF
X600
X605
AED
AEF
1
S79P
Window Switch
- Passenger
M74P
Window
Motor -
Passenger
X2
21
AEQ
6135
GN/GY
22
X275
12
X700
X800
S79LR
Window
Switch - Left
Rear
S79RR
Window Switch
- Right Rear
X3
19
4115
GN/WH
23
X225
8
X348
3
S32R
Seat
Heating
Switch -
Rear
2
7533
GN/VT
BTM
-BTM
56
X225
3
X348
2
K89
Immobilizer
Control
Module
5256240

Data Communication Schematics (Local Interconnect Network (2 of 3))

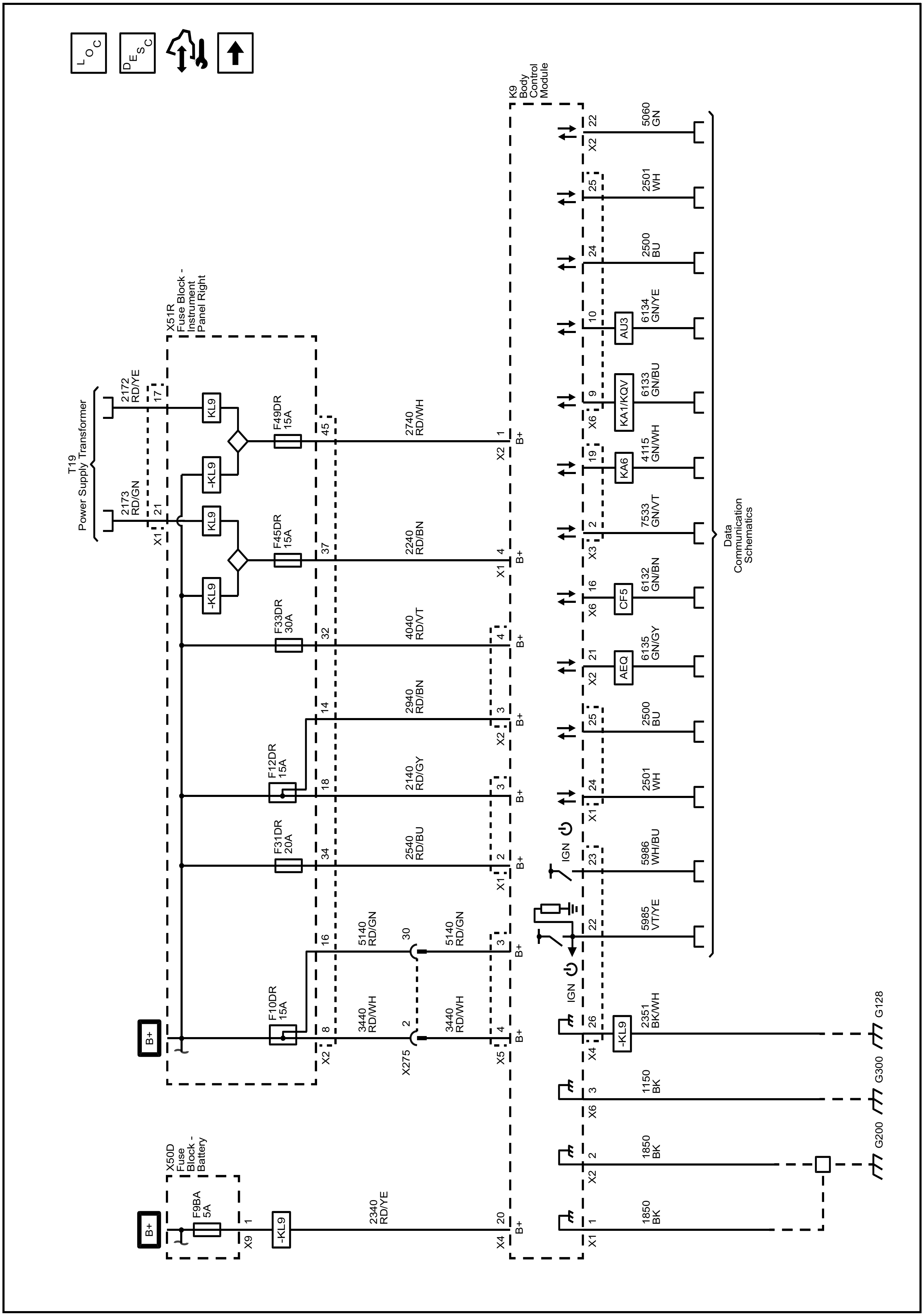

K20
Engine
Control
Module
X2 47 (L3B)
X2 8 (L82/L84/L87/LV3)
X2 48 (LM2)
4621
GN/VT
J170
KL9
VTI/WMI
-LM2
-LM2
X115 23
X132 2
J171
X133 2
X2 33
L3B
4623
GN/YE
X2 48 (L3B)
X2 7 (L82/L84/L87/LV3)
X2 49 (LM2)
4622
GN/WH
X1 42
L3B
X2 51
LM2
2732
GN/BN
J175
J175
1
1
P16
Instrument
Cluster
X1 20
UK3
3894
GN/BK
UV6
-UV6
J229
3894
BK/BU
K33
HVAC Control
Module
X2 6
KI3
4119
GN/BU
X1 9
10
X2 21
20
X85
Steering
Wheel Air
Bag Coil
4119
WH
X2 6
X1 1
2
2
4
4
3
3
3
4
3
3
X1 1
3
B110
Battery
Sensor
Module
M96A
Active
Grille Air
Shutter 1
Actuator
M96B
Active
Grille Air
Shutter 2
Actuator
G10L
Cooling
Fan
Motor -
Left
G10R
Cooling
Fan
Motor -
Right
G10LW
Cooling
Fan
Motor -
Lower
B75C
Multifunction
Intake Air
Sensor
G59
Engine
Coolant
Pump
G58
Evaporative
Emission
Purge Pump
Q97B
Engine
Coolant Flow
Control
Valve -
Block
Q97B
Engine
Coolant Flow
Control
Valve -
Block
Q74
Engine
Coolant
Bypass
Valve
M10
Charge Air
Cooler
Coolant
Pump
G17
Heater
Coolant
Pump
P29
Head-Up
Display
S70R
Steering
Wheel
Controls
Switch -
Right
K32
Steering
Wheel
Heating
Control
Module
5256241

Data Communication Schematics (Local Interconnect Network (3 of 3))

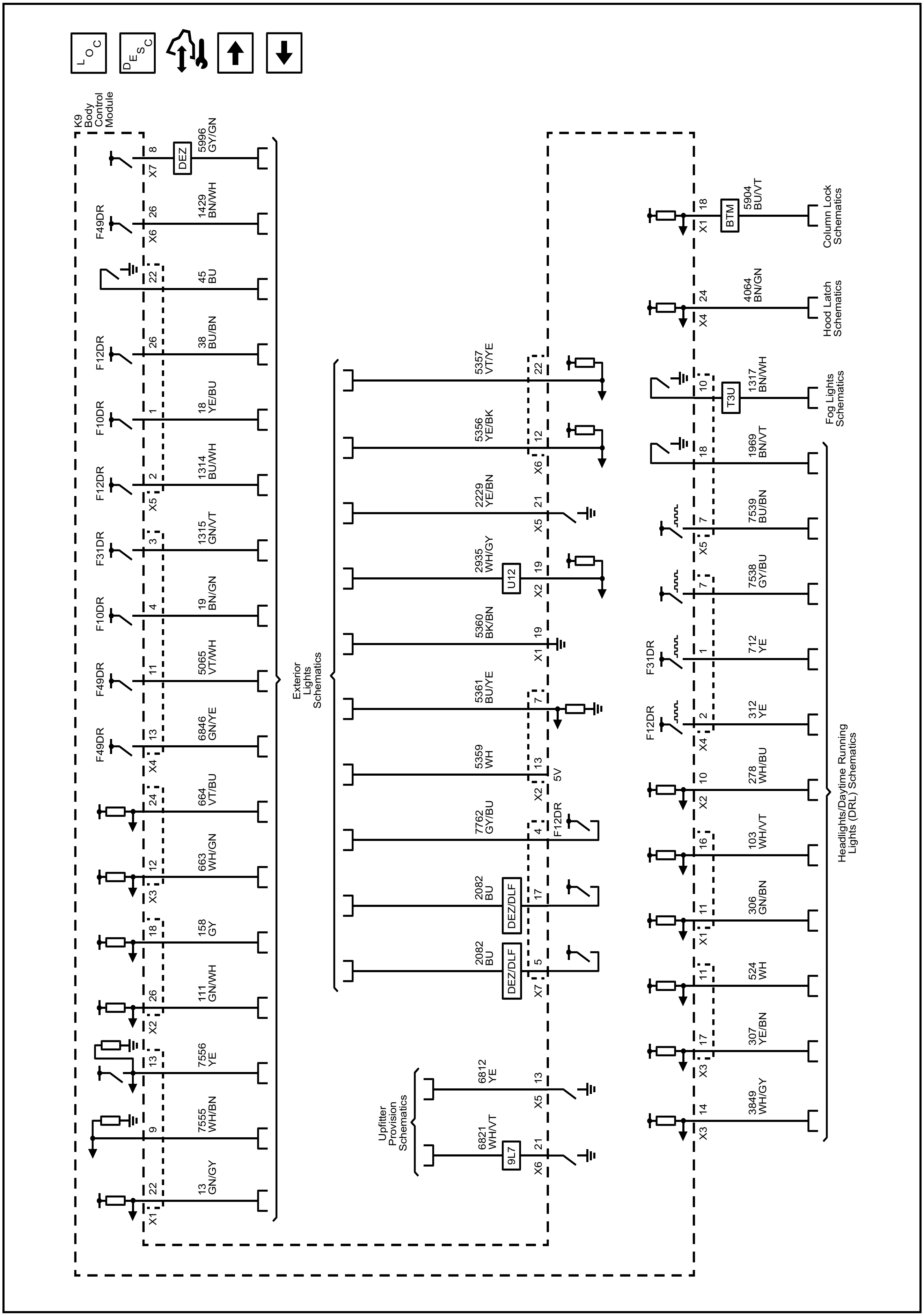

A104
Brake
Master
Cylinder
K160
Brake
System
Control
Module
23
35
2731
GN/YE
2733
GN/BU
J201
X225
57
2733
GN/BU
2733
GN/BU
2731
GN/YE
X140
38
X225
19
2733
GN/BU
2733
GN/BU
2
12
2
B80
Park
Brake
Switch
K133
Trailer
Brake
Power
Control
Module
S76
Trailer
Brake
Control
Switch
K183
UHF Short Range
Low Energy
Remote Control
Access
Transceiver
23
BOP
2738
GN/BK
J301
2738
GN/BK
2738
GN/BK
X140
44
J204
2738
GN/BK
J485
2738
GN/BK
2738
GN/BK
2738
GN/BK
2738
GN/BK
1
1
1
1
B342A
UHF Low
Energy Remote
Control Access
Sensor
Transceiver 1
B342C
UHF Low
Energy Remote
Control Access
Sensor
Transceiver 3
B342B
UHF Low
Energy Remote
Control Access
Sensor
Transceiver 2
B342D
UHF Low
Energy Remote
Control Access
Sensor
Transceiver 4
A26
HVAC
Controls
9
7531
GN/YE
X2
4
K33
HVAC Control
Module
K40
Seat
Memory
Control
Module
X2
3
A45
7530
GN/WH
X310
3
7530
GN/WH
7530
GN/WH
X500
44
X600
44
7530
GN/WH
7530
GN/WH
X505
13
X605
19
7530
GN/WH
7530
GN/WH
21
21
S146
Window/Outside
Rearview Mirror
Switch - Driver
S79P
Window Switch
- Passenger
LOC
DESC

5256242

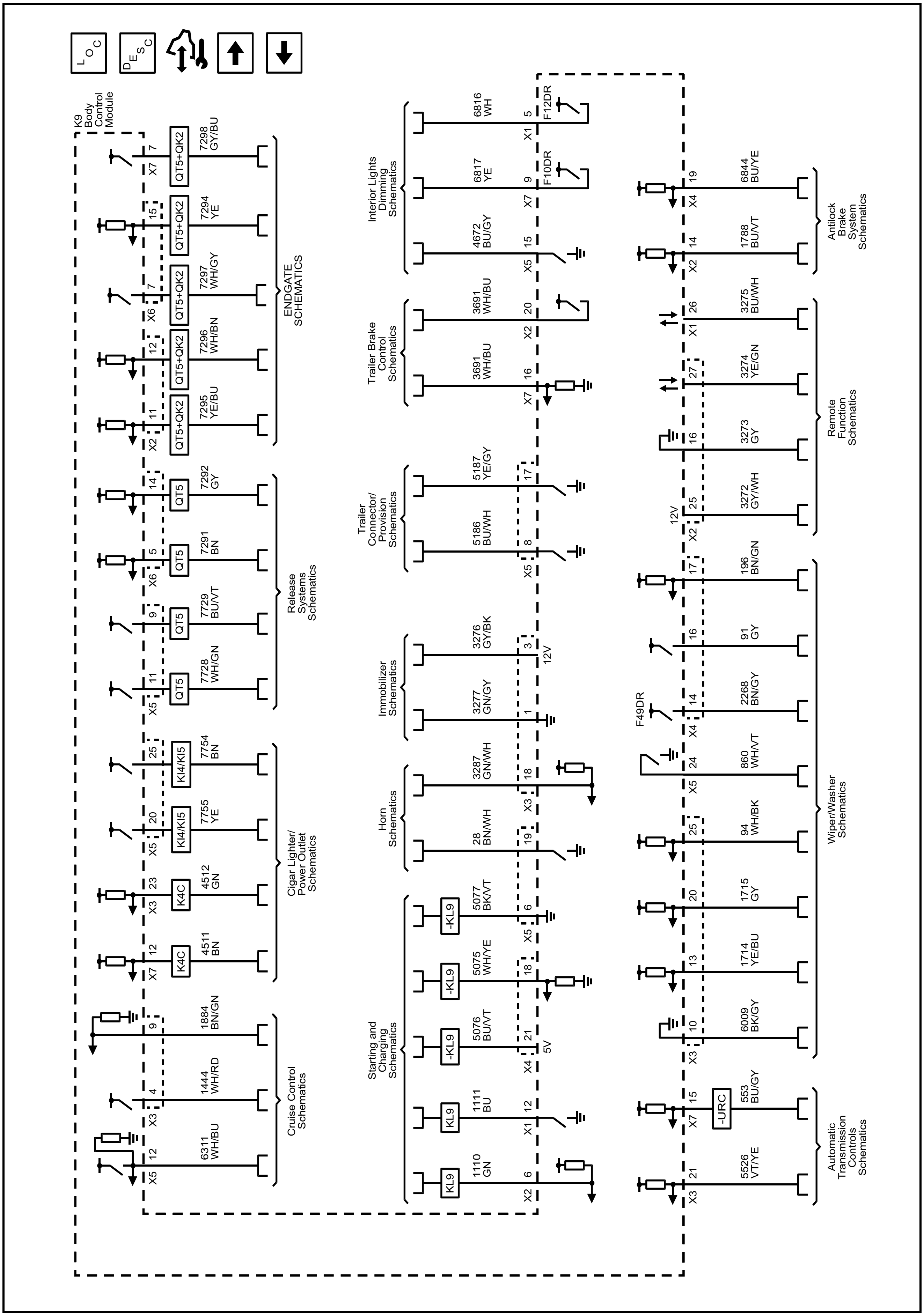
Body Control System Schematics (Module Power, Ground and Serial Data)


5256243
L O C
D E S C
K9 Body Control Module
X51R Fuse Block - Instrument Panel Right
X50D Fuse Block - Battery
T19 Power Supply Transformer
B+
F9BA 5A
X9 1
-KL9
2340 RD/YE
X4 20 B+
F10DR 15A
X2 8
3440 RD/WH
X275 2
3440 RD/WH
X5 4 B+
16
5140 RD/GN
30
5140 RD/GN
3 B+
F31DR 20A
34
2540 RD/BU
X1 2 B+
F12DR 15A
18
2140 RD/GY
3 B+
14
2940 RD/BN
X2 3 B+
F33DR 30A
32
4040 RD/VT
4 B+
-KL9
KL9
F45DR 15A
37
2240 RD/BN
X1 4 B+
X1 21
2173 RD/GN
-KL9
KL9
17
2172 RD/YE
F49DR 15A
45
2740 RD/WH
X2 1 B+
X1 1
1850 BK
X2 2
1850 BK
G200
X6 3
1150 BK
G300
X4 26
-KL9
2351 BK/WH
G128
IGN
22
5985 VT/YE
23
5986 WH/BU
IGN
X1 24
2501 WH
25
2500 BU
X2 21
AEQ
6135 GN/GY
X6 16
CF5
6132 GN/BN
X3 2
7533 GN/VT
19
KA6
4115 GN/WH
X6 9
KA1/KQV
6133 GN/BU
10
AU3
6134 GN/YE
24
2500 BU
25
2501 WH
X2 22
5060 GN
Data Communication Schematics

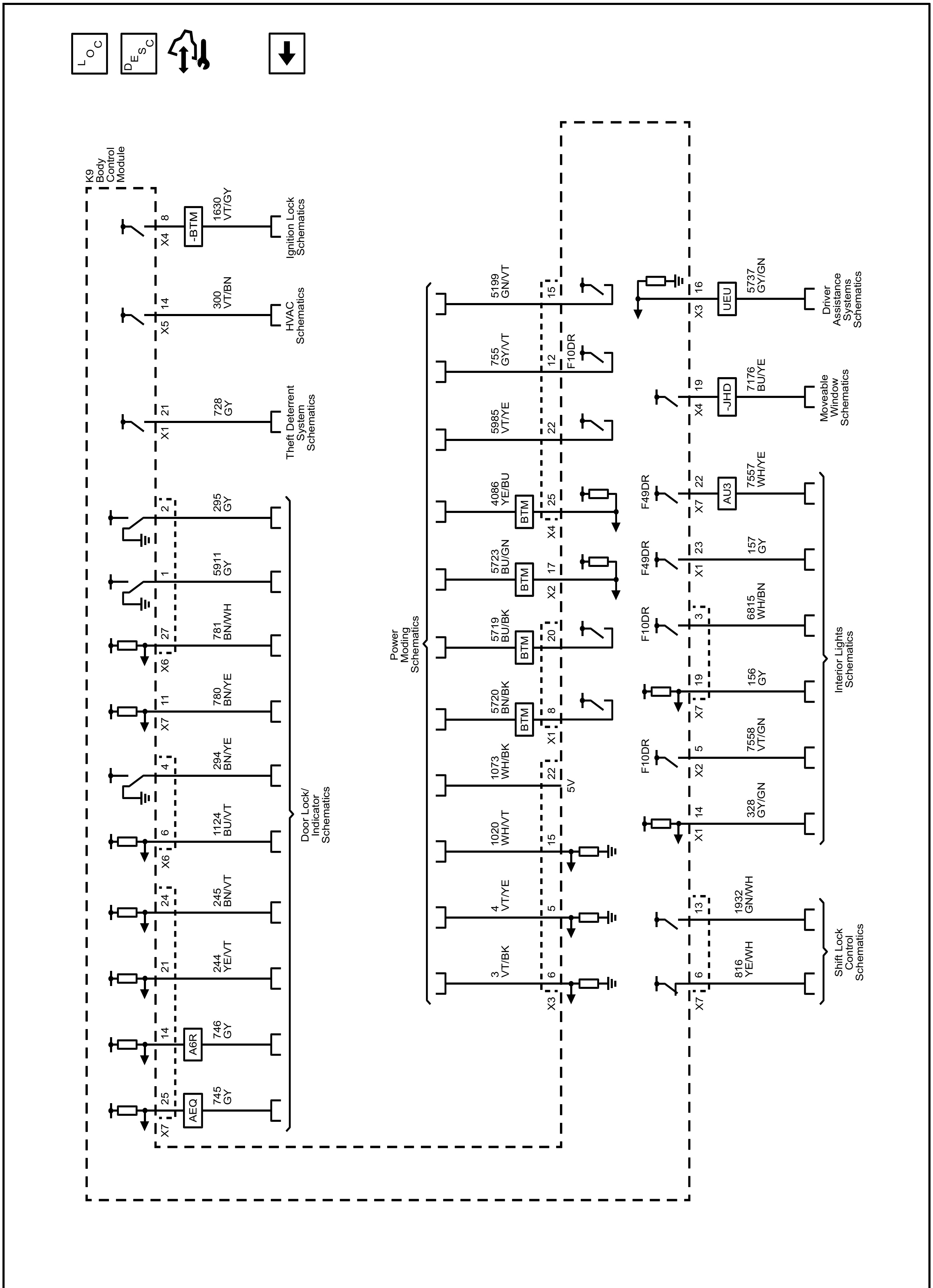
Body Control System Schematics (Subsystem References (1 of 3))


LOC
DESC
K9 Body Control Module
X7 8 DEZ 5996 GY/GN
F49DR X6 26 1429 BN/WH
22 45 BU
F12DR 26 38 BU/BN
F10DR 1 18 YE/BU
F12DR X5 2 1314 BU/WH
F31DR 3 1315 GN/VT
F10DR 4 19 BN/GN
F49DR 11 5065 VT/WH
F49DR X4 13 6846 GN/YE
24 664 VT/BU
X3 12 663 WH/GN
18 158 GY
X2 26 111 GN/WH
13 7556 YE
9 7555 WH/BN
X1 22 13 GN/GY
Exterior Lights Schematics
22 5357 VT/YE
X6 12 5356 YE/BK
X5 21 2229 YE/BN
X2 19 U12 2935 WH/GY
X1 19 5360 BK/BN
7 5361 BU/YE
X2 13 5V 5359 WH
4 F12DR 7762 GY/BU
17 DEZ/DLF 2082 BU
X7 5 DEZ/DLF 2082 BU
Upfitter Provision Schematics
X5 13 6812 YE
X6 21 9L7 6821 WH/VT
X1 18 BTM 5904 BU/VT
Column Lock Schematics
X4 24 4064 BN/GN
Hood Latch Schematics
10 T3U 1317 BN/WH
Fog Lights Schematics
18 1969 BN/VT
X5 7 7539 BU/BN
7 7538 GY/BU
F31DR 1 712 YE
F12DR X4 2 312 YE
X2 10 278 WH/BU
16 103 WH/VT
X1 11 306 GN/BN
11 524 WH
X3 17 307 YE/BN
X3 14 3849 WH/GY
Headlights/Daytime Running Lights (DRL) Schematics
5256244

Body Control System Schematics (Subsystem References (2 of 3))


5256246
LOC
DESC
K9 Body Control Module
X5 12 6311 WH/BU
X3 4 1444 WH/RD
9 1884 BN/GN
Cruise Control Schematics
X7 12 K4C 4511 BN
X3 23 K4C 4512 GN
Cigar Lighter/ Power Outlet Schematics
X5 20 KI4/KI5 7755 YE
25 KI4/KI5 7754 BN
X5 11 QT5 7728 WH/GN
9 QT5 7729 BU/VT
X6 5 QT5 7291 BN
14 QT5 7292 GY
Release Systems Schematics
X2 11 QT5+QK2 7295 YE/BU
12 QT5+QK2 7296 WH/BN
X6 7 QT5+QK2 7297 WH/GY
15 QT5+QK2 7294 YE
X7 7 QT5+QK2 7298 GY/BU
ENDGATE SCHEMATICS
X2 6 KL9 1110 GN
X1 12 KL9 1111 BU
X4 21 -KL9 5076 BU/VT 5V
18 -KL9 5075 WH/YE
X5 6 -KL9 5077 BK/VT
Starting and Charging Schematics
19 28 BN/WH
X3 18 3287 GN/WH
Horn Schematics
1 3277 GN/GY
3 3276 GY/BK 12V
Immobilizer Schematics
X5 8 5186 BU/WH
17 5187 YE/GY
Trailer Connector/ Provision Schematics
X7 16 3691 WH/BU
X2 20 3691 WH/BU
Trailer Brake Control Schematics
X5 15 4672 BU/GY
X7 9 6817 YE F10DR
X1 5 6816 WH F12DR
Interior Lights Dimming Schematics
X3 21 5526 VT/YE
X7 15 -URC 553 BU/GY
Automatic Transmission Controls Schematics
X3 10 6009 BK/GY
13 1714 YE/BU
20 1715 GY
25 94 WH/BK
X5 24 860 WH/VT
X4 14 2268 BN/GY F49DR
16 91 GY
17 196 BN/GN
Wiper/Washer Schematics
X2 25 3272 GY/WH 12V
16 3273 GY
27 3274 YE/GN
X1 26 3275 BU/WH
Remote Function Schematics
X2 14 1788 BU/VT
X4 19 6844 BU/YE
Antilock Brake System Schematics

Body Control System Schematics (Subsystem References (3 of 3))


5256247
K9 Body Control Module
X4 8 -BTM 1630 VT/GY Ignition Lock Schematics
X5 14 300 VT/BN HVAC Schematics
X1 21 728 GY Theft Deterrent System Schematics
2 295 GY
1 5911 GY
X6 27 781 BN/WH
X7 11 780 BN/YE
4 294 BN/YE
X6 6 1124 BU/VT
24 245 BN/VT
21 244 YE/VT
14 A6R 746 GY
X7 25 AEQ 745 GY
Door Lock/ Indicator Schematics
Power Moding Schematics
5199 GN/VT 15
755 GY/VT 12 F10DR
5985 VT/YE 22
4086 YE/BU BTM X4 25
5723 BU/GN BTM X2 17
5719 BU/BK BTM 20
5720 BN/BK BTM X1 8
1073 WH/BK 22 5V
1020 WH/VT 15
4 VT/YE 5
3 VT/BK X3 6
X3 16 UEU 5737 GY/GN Driver Assistance Systems Schematics
X4 19 -JHD 7176 BU/YE Moveable Window Schematics
F49DR X7 22 AU3 7557 WH/YE
F49DR X1 23 157 GY
F10DR 3 6815 WH/BN
X7 19 156 GY
F10DR X2 5 7558 VT/GN
X1 14 328 GY/GN
Interior Lights Schematics
13 1932 GN/WH
X7 6 816 YE/WH
Shift Lock Control Schematics

Description and Operation

Data Link Communications Description and Operation

Note: This is an overview of different serial data buses used by GM devices to communicate with each others. Use *Data Communication Schematics on page 7-4* to find out which serial data buses are configured for a specific vehicle.

Data Link Communications Overview

There are many components in a vehicle that rely on information from other sources, transmit information to other sources, or both. Serial data communication networks provide a reliable, cost effective, way for various components of the vehicle to “talk” to one another and share information.

GM uses a number of different communication buses to insure the timely and efficient exchange of information between devices. When compared to each other, some of these buses are different in nature as far as speed, signal characteristics, and behavior. An example of this is the High Speed GMLAN and Low Speed GMLAN Buses.

On the other hand, when other buses are compared to each other they have similar characteristics and simply operate in parallel. In this case they are used to group together components which have high interaction. Examples are the High Speed GMLAN, Powertrain Expansion, and Chassis Expansion Buses. This allows them to communicate with each other on a bus with reduced message congestion insuring faster and the more timely exchange of information than if all vehicle devices were on a single bus.

The majority of information that exists within a given network generally stays local; however some information will have to be shared on other networks. Control modules designated as Gateway’s perform the function of transferring information between the various buses. A Gateway module is connected to at least 2 buses and will interact with each network according to its message strategy and transmission models.

GMLAN provides the capability for a receiving device to monitor message transmissions from other devices in order to determine if messages of interest are not being received. The primary purpose is to allow reasonable default values to be substituted for the information no longer being received. Additionally, a device may set a Diagnostic Trouble Code (DTC) to indicate that the device it is expecting information from is no longer communicating. A lost communication DTC typically is set in devices other than the device with a communication failure.

K9 Body Control Module (BCM)

The K9 Body Control Module has discrete input and output terminals to control the vehicle's body functions. The K9 Body Control Module is wired to the High Speed GMLAN Bus, Low Speed GMLAN Bus and multiple Local Interconnect Network (LIN) Buses and acts as a gateway between them. The various K9 Body Control Module input and output circuits are illustrated in the corresponding functional areas on the K9 Body Control Module electrical schematics. Refer to the *Body Control System Schematics on page 7-20* for more detailed information.

Power Mode Master

The K9 Body Control Module functions as the power mode master. The ignition switch is a low current switch with multiple discrete ignition switch signals to the power mode master for determining the power mode that will be sent over the serial data circuits to the other devices that need this information; the power mode master will activate relays and other direct outputs of the power mode master as needed. Refer to *Power Mode Description and Operation (Without BTM and/or ATH/ATS) on page 7-750* or *Power Mode Description and Operation (BTM and/or ATH/ATS) on page 7-752* for a complete description of power mode functions.

Gateway

The K9 Body Control Module functions as a gateway or translator. The purpose of the gateway is to translate serial data messages between the High Speed GMLAN Bus and the Low Speed GMLAN Bus for communication between the various devices. The gateway will interact with each network according to that network's transmission protocol. All communication between the K9 Body Control Module and a scan tool is done through the primary High Speed GMLAN Bus.

K56 Serial Data Gateway Module (Gen 3)

Note: The Data Bus Diagnostic Tool will not work with vehicles equipped with K56 Serial Data Gateway Module gen 3.

This vehicle is equipped with a K56 Serial Data Gateway Module gen 3. The K56 Serial Data Gateway Module is used to handle communications between multiple GMLAN buses and functions as a gateway to isolate the secure networks from the unsecured networks. It was created to mitigate bus loading to support cyber security and new active/advanced safety features (if equipped). The K56 Serial Data Gateway Module is used as a frame-to-frame gateway for all functional messages. Communication between the K56 Serial Data Gateway Module and a scan tool is done through the primary High Speed GMLAN bus. When the K56 Serial Data Gateway Module is not communicating, the scan tool can not communicate with the vehicle.

The K56 Serial Data Gateway Module has two microprocessors within the electronic control unit. Each microprocessor is diagnosed/programmed independently via the scan tool because the two microprocessors do not talk internally. Each of these processors are responsible for managing the traffic for specific communication buses on the vehicle. The two particular buses that they will manage are high speed and low speed. If communication does not exist or the particular micros have not been programmed, control modules won’t be able to communicate with or through the K56 Serial Data Gateway Module.

Low speed Microprocessor

- The low speed microprocessor is programmable via the X84 Data Link Connector (DLC) terminal 1. This low speed bus between the X84 Data Link Connector and the K56 Serial Data Gateway Module is called the Low Speed DLC Bus.
- The low speed microprocessor is capable of gating signals between the Low Speed DLC, the primary Low Speed GMLAN, and the Gateway Isolated Low Speed GMLAN Buses.
- The low speed microprocessor is also capable of gating signals between the Object High Speed DLC Bus (DLC terminals 3 & 11) and the Object High Speed GMLAN Bus.

High speed Microprocessor

- The high speed micro is programmable via the X84 Data Link Connector (DLC) terminals 6 & 14. This high speed bus between the X84 Data Link Connector and the K56 Serial Data Gateway Module is called High Speed DLC Bus.
- The high speed micro is capable of gating signals between the High Speed DLC, the primary High Speed GMLAN, the Gateway Expansion High Speed GMLAN, and the Gateway Isolated High Speed GMLAN Buses.
- The high speed micro is also capable of gating signals between the Chassis High Speed DLC Bus (DLC terminals 12 & 13) and the Chassis High Speed GMLAN Bus.

High Speed GMLAN Bus (Circuits 2500 & 2501)

Note: Continuity check cannot be performed between the X84 Data Link Connector and control modules on the primary High Speed GMLAN Bus.

A primary High Speed GMLAN Bus is used where data needs to be exchanged at a high enough rate to minimize the delay between the occurrence of a change in sensor value and the reception of this information by a control device using the information to adjust vehicle system performance.

The primary High Speed GMLAN serial data network consists of two twisted wires. One signal circuit is identified as GMLAN-High and the other signal circuit is identified as GMLAN-Low. At each end of the data bus there is a 120 Ω termination resistor between the GMLAN-High and GMLAN-Low circuits.

Data symbols (1’s and 0’s) are transmitted sequentially at a rate of 500 Kbit/s. The data to be transmitted over the bus is represented by the voltage difference between the GMLAN-High signal voltage and the GMLAN-Low signal voltage.

When the two wire bus is at rest the GMLAN-High and GMLAN-Low signal circuits are not being driven and this represents a logic “1”. In this state both signal circuits are at the same voltage of 2.5 V. The differential voltage is approximately 0 V.

When a logic “0” is to be transmitted, the GMLAN-High signal circuit is driven higher to about 3.5 V and the GMLAN-Low circuit is driven lower to about 1.5 V. The differential voltage becomes approximately 2.0 (+/- 0.5) V.

High Speed DLC Bus (Circuits 1978 & 1979)

Between the X84 Data Link Connector (DLC) terminals 6 & 14 and the K56 Serial Data Gateway Module terminals 15 X1 & 16 X1, there is a high speed bus called the High Speed DLC Bus. The High Speed DLC Bus is similar to the primary High Speed GMLAN Bus. Between the GMLAN-High and GMLAN-Low circuits, there is a 120 Ω termination resistor internal to the K56 Serial Data Gateway Module. There is no terminating resistor at the DLC.

The K56 Serial Data Gateway Module uses its high speed microprocessor to gate signals between the High Speed DLC, the primary High Speed GMLAN, the Gateway Expansion High Speed GMLAN, and the Gateway Isolated High Speed GMLAN Buses.

Chassis High Speed GMLAN Bus (Circuits 6105 & 6106) (if equipped)

Note: Continuity check cannot be performed between the X84 Data Link Connector and control modules on the Chassis High Speed GMLAN Bus.

The Chassis High Speed GMLAN Bus (or Chassis Expansion Bus) is basically a copy of the High Speed GMLAN Bus except that its use is reserved for chassis components. This implementation splits message congestion between two parallel buses helping to insure timely message transmission and reception. Sometimes communication is required between the Chassis High Speed GMLAN Bus and the primary High Speed GMLAN Bus. This is accomplished by using the K17 Electronic Brake Control Module as the Gateway module. Since the Chassis High Speed GMLAN Bus and primary High Speed GMLAN Bus operate in the same manner, the diagnostics for each are similar.

Chassis High Speed DLC Bus (Circuits 1980 & 1981)

Between the X84 Data Link Connector (DLC) terminals 12 & 13 and the K56 Serial Data Gateway Module terminals 17 X1 & 18 X1, there is a high speed bus called the Chassis High Speed DLC Bus. The Chassis High Speed DLC Bus is similar to the Chassis High Speed GMLAN Bus. Between the GMLAN-High and GMLAN-Low circuits, there is a 120 Ω termination resistor internal to the K56 Serial Data Gateway Module. There is no terminating resistor at the DLC.

The K56 Serial Data Gateway Module uses its high speed microprocessor to gate signals between the Chassis High Speed DLC Bus and the Chassis High Speed GMLAN Bus.

Powertrain High Speed GMLAN Bus (Circuits 7493 & 7494) (if equipped)

Note: Continuity check cannot be performed between the X84 Data Link Connector and control modules on the Powertrain High Speed GMLAN Bus.

The Powertrain High Speed GMLAN Bus (or Powertrain Expansion Bus) is basically a copy of the High Speed GMLAN Bus except that its use is reserved for Powertrain components. The bus is optional based upon feature content. Sometimes communication is required between the Powertrain High Speed GMLAN

Bus and the primary High Speed GMLAN Bus. This is accomplished by using the K20 Engine Control Module as the Gateway module. Since the Powertrain High Speed GMLAN Bus and the primary High Speed GMLAN Bus operate in the same manner, the diagnostics for each are similar.

Powertrain Sensor High Speed GMLAN Bus (Circuits 4498 & 4499) (if equipped)

Note: Continuity check cannot be performed between the X84 Data Link Connector and control modules on the Powertrain Sensor High Speed GMLAN Bus.

The Powertrain Sensor High Speed GMLAN Bus is basically a copy of the primary High Speed GMLAN Bus except that its use is reserved for Powertrain components. The bus is optional based upon feature content. Sometimes communication is required between the Powertrain Sensor High Speed GMLAN Bus and the primary High Speed GMLAN Bus. This is accomplished by using the K20 Engine Control Module as the Gateway module. Since the Powertrain Sensor High Speed GMLAN Bus and the primary High Speed GMLAN Bus operate in the same manner, the diagnostics for each are similar.

Object High Speed GMLAN Bus (Circuits 3811 & 3813) (if equipped)

Note: Continuity check cannot be performed between the X84 Data Link Connector and control modules on the Object High Speed GMLAN Bus.

The Object High Speed GMLAN Bus is basically a copy of the High Speed GMLAN Bus except that its use is reserved for the enhanced safety system. This implementation is used to isolate the heavy communication among the enhanced safety system devices from the other vehicle buses, reducing congestion. The K124 Active Safety Control Module is connected to the Object High Speed GMLAN Bus as well as the primary High Speed GMLAN Bus, the Chassis High Speed GMLAN Bus, and the Low Speed GMLAN Bus. The K124 Active Safety Control Module acts as a Gateway module for all required communication between the Object High Speed GMLAN Bus devices and devices on these other vehicle buses. The Object High Speed GMLAN Bus operates in the same manner as the Chassis High Speed GMLAN and primary High Speed GMLAN buses and so the diagnostics are similar. The Object High Speed GMLAN Bus is physically partitioned into a Front Object Bus and a Rear Object Bus with each partition having its own communication enable circuit to activate the partition, but functional operation of both is identical. The Front Object Bus standard devices are the K124 Active Safety Control Module, the K109 Frontview Camera Module (or B174W Frontview Camera – Windshield), and the B233B Radar Sensor Module – Long Range. The Front Object Bus optional devices are the B233LF Radar Sensor Module – Short Range Left Front and the B233RF Radar Sensor Module – Short Range Right Front. The Rear Object Bus is optional and when present will have the K124 Active Safety Control Module, B233LR Radar Sensor Module – Short Range Left Rear, and B233RR Radar Sensor Module – Short Range Right Rear on the bus. All Object High Speed GMLAN Bus components are powered by the K124 Active Safety Control Module via the communication enable circuits, except the K109 Frontview Camera Module (or B174W Frontview Camera – Windshield) which is powered directly by battery.

Object High Speed DLC Bus (Circuits 2089 & 2090)

Between the X84 Data Link Connector (DLC) terminals 3 & 11 and the K56 Serial Data Gateway Module terminals 13 X1 & 14 X1, there is a high speed bus called the Object High Speed DLC Bus. The Object High Speed DLC Bus is similar to the Object High Speed GMLAN Bus. Between the GMLAN-High and GMLAN-Low circuits, there is a 120 Ω termination resistor internal to the K56 Serial Data Gateway Module. There is no terminating resistor at the DLC.

The K56 Serial Data Gateway Module uses its low speed microprocessor to gate signals between the Object High Speed DLC Bus and the Object High Speed GMLAN Bus.

Gateway Isolated High Speed GMLAN Bus (Circuits 1304 & 1305)

Note: Continuity check cannot be performed between the X84 Data Link Connector (or control modules on the primary High Speed GMLAN Bus) and control modules on the Gateway Isolated High Speed GMLAN Bus.

The Gateway Isolated High Speed GMLAN Bus is an extension of the primary High Speed GMLAN Bus except it is separated from the primary High Speed GMLAN Bus by the K56 Serial Data Gateway Module for cybersecurity protection. The K56 Serial Data Gateway Module verifies data messages being transmitted from the control modules on the Gateway Isolated High Speed GMLAN Bus back to the primary High Speed GMLAN Bus are good with valid transmitter messages. This bus does not terminate to the X84 Data Link Connector.

The Gateway Isolated High Speed GMLAN Bus consists of two twisted wires. One signal circuit is identified as GMLAN-High and the other signal circuit is identified as GMLAN-Low. At each end of the data bus there is a 120 Ω termination resistor between the GMLAN-High and GMLAN-Low circuits.

Gateway Expansion High Speed GMLAN Bus (Circuits 3935 & 3936)

Note: Continuity check cannot be performed between the X84 Data Link Connector (or control modules on the primary High Speed GMLAN Bus) and control modules on the Gateway Expansion High Speed GMLAN Bus.

The Gateway Expansion High Speed GMLAN Bus is not cybersecurity protected and does not terminate at the X84 Data Link Connector. This expansion bus is created to alleviate the throughput on the primary High Speed GMLAN Bus.

The Gateway Expansion High Speed GMLAN Bus consists of two twisted wires. One signal circuit is identified as GMLAN-High and the other signal circuit is identified as GMLAN-Low. At each end of the data bus there is a 120 Ω termination resistor between the GMLAN-High and GMLAN-Low circuits.

Ethernet Bus (if equipped)

At the core of the infotainment system is the Radio Ethernet Audio Video Bridging switch which communicates directly to each contributing Infotainment module terminator. The Ethernet harness consists of twisted pair wires from point to point. Each device on the Ethernet infotainment system sends/ receives data at 100 Mbit/s to/from a specified port at the A11 Radio. The Radio/Ethernet will also be used to program USB software update files to the devices connected to the Ethernet ports.

The A11 Radio is the Ethernet master. The Radio communicates with other devices and systems in the vehicle via GMLAN and LIN buses. Diagnostic Trouble Codes will be read on GMLAN to diagnose Ethernet, LIN and system faults. GMLAN will also be used for programming calibrations.

Media Oriented Systems Transport (MOST) Bus (Circuits 3997 & 3998) (if equipped)

The MOST Infotainment network is a dedicated high speed multimedia streaming data bus independent from GMLAN. The MOST Bus will be configured in a physical hardwired loop with each device within the bus sends and receives data on an assigned MOST addresses in a set order. Each device on the MOST Bus will be required to have twisted pair copper wires (2 transmit TX, 2 receive RX, and 1 electronic control line which is a 12 V wakeup signal line). The A11 Radio is the MOST Master and will monitor the bus for vehicle configuration, Infotainment data messages and errors on the bus. The MOST initialization consists of a short 100 ms low voltage pulse on the electronic control line (or MOST control line) connected to all devices contained on the MOST ring. This wakeup message once received by each device, will first respond with a generic device response. Once these initial responses on the MOST Bus are reported successfully without error to the A11 Radio, the second data request will record the MOST device addresses, their functionality requirements and capabilities within. The A11 Radio will learn this information and also record the address node sequence on the MOST Bus at this point. This node address list will now be stored within the A11 Radio as the MOST Bus configuration (called “Last Working MOST ID of Node 1 – 9” on scan tool data display).

When MOST receive, transmit, or control line faults are detected, transmit/receive messages will not received as expected from the wakeup request. The A11 Radio and the K74 Human Machine Interface Control Module will then perform diagnostics to isolate these MOST faults. If the MOST control line is shorted low to 0 V for excess amount of time, the A11 Radio will set a U2098 DTC and K74 Human Machine Interface Control Module will set a U0029 02 DTC. At this point the MOST Bus will be unable to communicate until the shorted MOST control line is repaired.

Once the shorted MOST control line diagnostics pass, the A11 Radio will attempt to resend the initial short pulse attempts up to 3 times on the MOST control line. If the expected responses are not received, the A11 Radio continues into a failure mode setting a U0028 DTC and will continue on to send one 300 ms long pulse, which will enable the furthest upstream transmitting device to become the surrogate MOST Master in this MOST fault/diagnostic mode. When the A11 Radio receives this new MOST Master identity, the surrogate MOST master device can be identified based on scan tool data parameter “Surrogate MOST Master Node Upstream Position”. The scan tool should be used to determine the MOST Bus configuration and direction by utilizing the “Last Working MOST ID of Node 1 – 9” parameters from the A11 Radio data display. When a fault is present, it will indicate the newly enabled “Surrogate MOST Master Node Upstream Position” from the A11 Radio. This will assist in determining where the MOST bus/control is at fault. The MOST device upstream from the surrogate MOST master device, transmit, receive, or control lines will be the suspect areas for diagnostics at this point. These faults can be associated with any of the MOST transmit, receive, or control line twisted copper wires or possibly an internal device fault.

The K74 Human Machine Interface Control Module will set a U0029 00 DTC when it diagnoses a MOST bus not communicating properly after one attempt. When the DTC U0029 00 is set by the K74 Human Machine Interface Control Module without the corresponding DTC U0028 from the A11 Radio, it will be an indication of an intermittent wiring/device condition.

FlexRay Bus (if equipped)

The FlexRay Bus is developed for safety related applications and higher data rate in real time application. The communication is time triggered. The FlexRay serial data network consists of two unshielded twisted wires to connect FlexRay nodes together. A FlexRay node is a device connected to a FlexRay Bus.

The FlexRay serial data network features 2 communication channels: channel A and channel B. Each channel may be operated at a data rate of up to 10 Mbit/s. FlexRay nodes can be connected to either both channels or a single channel. Each FlexRay channel consists of multiple branches. Each branch is a private bus. At each end of a branch, there is a 100 Ω terminating resistor connected between the pair of FlexRay serial data circuits. The terminating resistors can be external or internal to a FlexRay device.

The second FlexRay channel can be used as a redundant channel for fault toleration or to increase data rate of up to 20 Mbit/s. The dual channel configuration consists of two independent data channels for fault-tolerance. When one channel fails, the communication can still continue with reduced bandwidth.

Low Speed GMLAN Bus (Circuit 5060)

Note: Continuity check cannot be performed between the X84 Data Link Connector and control modules on the Low Speed GMLAN Bus.

Low Speed GMLAN Bus is used in applications where a high data rate is not required which allows for the use of less complex components. It is typically used for operator controlled functions where the response time requirements are slower than those required for dynamic vehicle control.

The Low Speed GMLAN Serial Data Network consists of a single wire, ground referenced bus with high side voltage drive. During on road vehicle operation data symbols (1’s and 0’s) are transmitted sequentially at the normal rate of 33.3 Kbit/s. For component programming only, a special high speed data mode of 83.3 Kbit/s may be used.

Unlike the high speed dual wire networks, the single wire low speed network does not use terminating resistors at either end of the network.

The data symbols to be transmitted over the bus are represented by different voltage signals on the bus. When the Low Speed GMLAN Bus is at rest and is not being driven, there is a low signal voltage of approximately 0.2 V. This represents a logic “1”. When a logic “0” is to be transmitted, the signal voltage is driven higher to around 4.0 V or higher.

Low Speed DLC Bus (Circuit 2100)

Between the X84 Data Link Connector (DLC) terminal 1 and the K56 Serial Data Gateway Module terminal 26 X1, there is a low speed bus called the Low Speed DLC Bus. The Low Speed DLC Bus is similar to the primary Low Speed GMLAN Bus.

The K56 Serial Data Gateway Module uses its low speed microprocessor to gate signals between the Low Speed DLC, the primary Low Speed GMLAN, and the Gateway Isolated Low Speed GMLAN Buses.

Gateway Isolated Low Speed GMLAN Bus (Circuit 1102)

Note: Continuity check cannot be performed between the X84 Data Link Connector (or control modules on the primary Low Speed GMLAN Bus) and control modules on the Gateway Isolated Low Speed GMLAN Bus.

The Gateway Isolated Low Speed GMLAN Bus is an extension of the primary Low Speed GMLAN Bus except it is separated from the primary Low Speed GMLAN Bus by the K56 Serial Data Gateway Module for cybersecurity protection. The K56 Serial Data Gateway Module verifies data messages being transmitted from the control modules on the Gateway Isolated Low Speed GMLAN Bus back to the primary Low Speed GMLAN Bus are good with valid transmitter messages. This bus does not terminate to the X84 Data Link Connector.

Local Interconnect Network (LIN) Bus

The Local Interconnect Network (LIN) Bus consists of a single wire with a transmission rate of 10.417 Kbit/s. This bus is used to exchange information between a master control module and other smart devices which provide supporting functionality. This type of configuration does not require the capacity or speed of either a High Speed GMLAN Bus or Low Speed GMLAN Bus and is thus relatively simpler.

The data symbols (1’s and 0’s) to be transmitted are represented by different voltage levels on the communication bus. When the LIN Bus is at rest and is not being driven, the signal is in a high voltage state of approximately Vbatt. This represents a logic “1”. When a logic “0” is to be transmitted, the signal voltage is driven low to about ground (0.0 V).

Communication Enable Circuit Description

Devices on High Speed GMLAN Bus enable or disable communication based on the voltage level of the Serial Data Communication Enable circuit or Accessory Wakeup Serial Data circuit. When the circuit voltage is high (around 12 V), communications are enabled. When the circuit is low, communications are disabled.

X84 Data Link Connector (DLC)

The X84 Data Link Connector is a standardized 16-cavity connector. Connector design and location is dictated by an industry wide standard, and is required to provide the following:

- Terminal 1: Low Speed GMLAN Serial Data #3 terminal (Low Speed DLC Bus)
- Terminal 3: High Speed GMLAN Serial Data (+)(13) terminal (Object High Speed DLC Bus)
- Terminal 4: Scan tool power ground terminal
- Terminal 5: Common signal ground terminal
- Terminal 6: High Speed GMLAN Serial Data (+)(11) terminal (High Speed DLC Bus)
- Terminal 11: High Speed GMLAN Serial Data (-)(13) terminal (Object High Speed DLC Bus)
- Terminal 12: High Speed GMLAN Serial Data (+)(12) terminal (Chassis High Speed DLC Bus)
- Terminal 13: High Speed GMLAN Serial Data (-)(12) terminal (Chassis High Speed DLC Bus)
- Terminal 14: High Speed GMLAN Serial Data (-)(11) terminal (High Speed DLC Bus)
- Terminal 16: Scan tool power, battery positive voltage terminal

Serial Data Reference

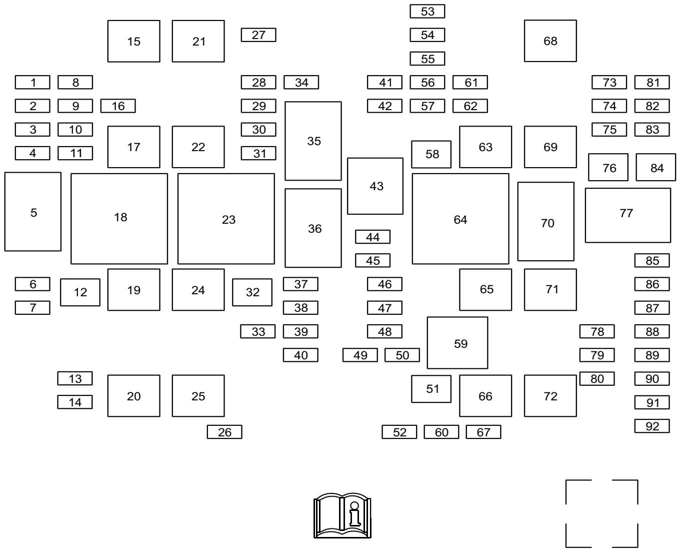
The scan tool communicates over the various buses on the vehicle. When a scan tool is installed on a vehicle, the scan tool will try to communicate with every device that could be optioned into the vehicle. If an option is not installed on the vehicle, the scan tool will display No Comm (or Not Connected) for that optional device. In order to avert misdiagnoses of No Communication with a specific device, refer to Data Link References for a list of devices and the buses they communicate with. Use schematics and specific vehicle build RPO codes to determine optional devices.

Electrical Component and Inline Harness Connector End Views

Visual Identification

Electrical Center Identification Views

X50A Fuse Block - Underhood Label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FUSES

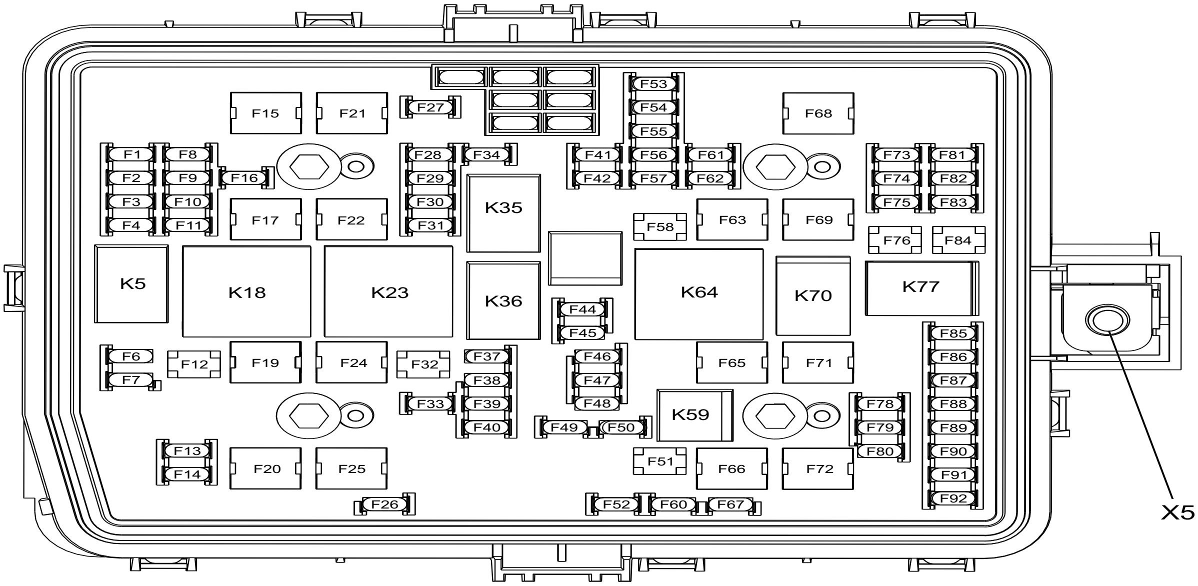
1 HI BEAM LT (10A)
2 HI BEAM RT (10A)
3 HEAD LAMP LT (20A)
4 HEAD LAMP RT (20A)
6 TIM (25A)
7 SPARE (10A)
8 FOG LAMP (15A)
9 VKM (5A)
10 SPARE (10A)
11 POLICE UPFTR (10A)
12 SPARE (30A)
13 WSHR FRT (15A)
14 WSHR RR (15A)
15 MSB DRVR (40A)
16 SPARE (15A)
17 IECL 1 (60A)
19 DC/AC INV (60A)
20 IECR2 (60A)
21 MSB PASS (40A)
22 IECL 2 (60A)
24 EBOOST 1 (60A)
25 REC (60A)
26 SPARE (15A)
27 HORN (15A)
28 SPARE (15A)
29 SPARE (15A)
30 SPARE (15A)
31 SPARE (15A)
32 REAR DEFOG (30A)
33 HTD MIR (15A)
34 PRK LAMP LT (15A)
37 EURO TRLR CONN (20A)
38 TIM (10A)
39 SPARE (10A)
40 MISC IGN (10A)
41 TRLR PRK LAMP (20A)
42 PRK LAMP RT (15A)
44 SPARE (5A)
45 SECD FUEL PUMP (20A)
46 ECM IGN (15A)
47 TCM IGN (10A)
48 SPARE (10A)
49 TCM (15A)
50 A/C CLTCH (10A)
51 TCCM (30A)
52 FRT WPR (25A)
53 CHMSL (10A)
54 TRLR REV LAMP (10A)
55 TRLR BCK/UP LAMP (10A)
56 SADS (15A)
57 TTPM / SBZA (15A)
58 STRTR MTR (30A) LD
60 AFM1 (10A)
61 VES (5A)
62 ICCM / CVS (10A)
63 TRLR BATT (30A)
65 AUX UEC (60A)
66 COOL FAN MTR LT (50A)
67 AFM2 (10A)
68 TIM (40A)
69 STRTR MTR (30A) HD
69 STRTR PINION (40A) LD
71 MTR COOL PUMP (50A)
72 COOL FAN MTR RT / LWR (50A)
73 TRLR STP/TRN LAMP LT (10A)
74 TIM (20A)
75 DEFC (20A)
76 ELEC RNG BDS (30A)
78 ECM (15A)
79 AUX BATT / SCRPM (10A)
80 CABIN COOL PUMP 17W (10A)
81 TRLR STP/TRN LAMP RT (10A)
82 TIM (30A)
83 FTZM (30A)
84 TRLR BRK (30A)
85 ENG (15A)
86 ECM (30A)
87 INJ B EVEN (20A)
88 O2 B SNSR (15A)
89 O2 A SNSR (15A)
90 INJ A ODD (20A)
91 ECM THROT CONT (15A)
92 COOL FAN CLUTCH / AERO SHUTTER (10A)

RELAYS

5 HEAD LAMP
18 DC/AC INV
23 REAR DEFOG
35 PRK LAMP
36 RUN/CRNK
43 SECD FUEL PUMP
59 A/C CLTCH
64 COOL FAN CLUTCH HD
64 STRTR MTR LD
70 STRTR MTR HD
70 STRTR PINION LD
77 PWR/TRN

5044140

X50A Fuse Block - Underhood Top View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5041384

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	HI BEAM LT	F1UA	10A	• E13LA Headlamp Assembly - Left
F2	HI BEAM RT	F2UA	10A	• E13RA Headlamp Assembly - Right
F3	HEAD LAMP LT	F3UA	20A	• E13LA Headlamp Assembly - Left
F4	HEAD LAMP RT	F4UA	20A	• E13RA Headlamp Assembly - Right
F6	TIM	F6UA	25A	• Not Used
F7	SPARE	F7UA	10A	• Not Used
F8	FOG LAMP	F8UA	15A	• E29LF Fog Lamp - Left Front (T3U) • E29RF Fog Lamp - Right Front (T3U)
F9	VKM	F9UA	5A	• Not Used
F10	SPARE	F10UA	10A	• Not Used
F11	POLICE UPFTR	F11UA	10A	• Not Used
F12	SPARE	F12UA	30A	• Not Used
F13	WSHR FRT	F13UA	15A	• G24 Windshield Washer Pump
F14	WSHR RR	F14UA	15A	• Not Used
F15	MSB DRVR	F15UA	40A	• Not Used
F16	SPARE	F16UA	15A	• Not Used
F17	IECL 1	F17UA	60A	• X51L Fuse Block - Instrument Panel Left (KA1/QT5)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F19	DC/AC INV	F19UA	60A	• T1 Accessory DC/AC Power Inverter Module (KI4/KI5)
F20	IECR2	F20UA	60A	• X51R Fuse Block - Instrument Panel Right
F21	MSB PASS	F21UA	40A	• Not Used
F22	IECL 2	F22UA	60A	• X51L Fuse Block - Instrument Panel Left (BTM/A48)
F24	EBOOST 1	F24UA	60A	• K17 Electronic Brake Control Module • X140
F25	REC	F25UA	60A	• Not Used
F26	SPARE	F26UA	15A	• Not Used
F27	HORN	F27UA	15A	• P12 Horn
F28	SPARE	F28UA	15A	• Not Used
F29	SPARE	F29UA	15A	• Not Used
F30	SPARE	F30UA	15A	• Not Used
F31	SPARE	F31UA	15A	• Not Used
F32	REAR DEFOG	F32UA	30A	• E18 Rear Defogger Grid
F33	HTD MIR	F33UA	15A	• E17D Outside Rearview Mirror Glass - Driver (DLF/DEZ) • E17P Outisde Rearview Mirror Glass - Passenger (DLF/DEZ)
F34	PRK LAMP LT	F34UA	15A	• E13LA Headlamp Assembly - Left • E42L Tail Lamp Assembly - Left
F37	EURO TRLR CONN	F37UA	20A	• Not Used
F38	TIM	F38UA	10A	• Not Used
F39	SPARE	F39UA	10A	• Not Used
F40	MISC IGN	F40UA	10A	• X51B Fuse Block - Instrument Panel Auxiliary
F41	TRLR PRK LAMP	F41UA	20A	• X88 Trailer Connector (Z82-U1D)
F42	PRK LAMP RT	F42UA	15A	• E13RA Headlamp Assembly - Right • E42R Tail Lamp Assembly - Right
F44	SPARE	F44UA	5A	• Not Used
F45	SECO FUEL PUMP	F45UA	20A	• Not Used
F46	ECM IGN	F46UA	15A	• K20 Engine Control Module • K34 Glow Plug Control Module (LM2) • K68 Trailer Lighting Control Module (U1D) • K111 Fuel Pump Driver Control Module • K115 Reductant Control Module (LM2) • K160 Brake System Control Module
F47	TCM IGN	F47UA	10A	• M26 Front Axle Engagement Actuator (NP0/NQH) • K71 Transmission Control Module (MQB/MQE) • Q8 Control Solenoid Valve Assembly (MYC)
F48	SPARE	F48UA	10A	• Not Used
F49	TCM IGN	F49UA	15A	• T12 Automatic Transmission Assembly (MQB)
F50	A/C CLTCH	F50UA	10A	• Q2 A/C Compressor Clutch
F51	TCCM	F51UA	30A	• K69 Transfer Case Control Module (NP0/NQH)
F52	FRT WPR	F52UA	25A	• KR12B Windshield Wiper Relay • KR12C Windshield Wiper Speed Control Relay

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F53	CHMSL	F53UA	10A	• E6 Center High Mounted Stop Lamp
F54	TRLR REV LAMP	F54UA	10A	• A10 Inside Rearview Mirror (DD8/DRZ) • A11 Radio • E42L Tail Lamp Assembly - Left • E42R Tail Lamp Assembly - Right
F55	TRLR BCK/ UP LAMP	F55UA	10A	• X88 Trailer Connector (Z82-U1D)
F56	SADS	F56UA	15A	• K19 Suspension Control Module (Z45)
F57	TTPM/SBZA	F57UA	15A	• B218L Side Object Sensor Module - Left (UKC) • B218R Side Object Sensor Module - Right (UKC) • K214 Trailer Tire Pressure Indicator Module (PTT)
F58	STRTR MTR	F58UA	30A	• KR27 Starter Relay
F60	AFM1	F60UA	10A	• K20 Engine Control Module (L82/L84/L87)
F61	VES	F61UA	5A	• Not Used
F62	ICCM/CVS	F62UA	10A	• Q13 Evaporative Emission Vent Solenoid Valve (-LM2)
F63	TRLR BATT	F63UA	30A	• X88 Trailer Connector
F65	AUX UEC	F65UA	60A	• X50B Fuse Block - Underhood Auxiliary (LM2)
F66	COOL FAN MTR LT	F66UA	50A	• G10L Cooling Fan Motor - Left
F67	AFM2	F67UA	10A	• K20 Engine Control Module (L82/L84/L87)
F68	TIM	F68UA	40A	• Not Used
F69	STRTR PINION	F69UA	40A	• KR27C Starter Pinion Solenoid Actuator Relay
F71	MTR COOL PUMP	F71UA	50A	• G10R Cooling Fan Motor - Right (L3B)
F72	COOL FAN MTR RT/LWR	F72UA	50A	• G10R Cooling Fan Motor - Right (L92/L84/L87/LV3) • G10B Cooling Fan Motor - Lower (L3B/LM2)
F73	TRLR STP/TRN LAMP LT	F73UA	10A	• X88 Trailer Connector (Z82-U1D)
F74	TIM	F74UA	20A	• K101 Trailer Interface Control Module (LM2)
F75	DEFC	F75UA	20A	• K115 Reductant Control Module (LM2)
F76	ELEC RNG BOS	F76UA	30A	• K4 Assist Step Control Module (BRS)
F78	ECM	F78UA	15A	• K20 Engine Control Module
F79	AUX BATT/ SCRPM	F79UA	10A	• Not Used
F80	CABIN COOL PUMP 17W	F80UA	10A	• G17 Heater Coolant Pump (LM2) • KR33 Auxiliary Heater Coolant Pump Relay (L84/L87)
F81	TRLR STP/TRN LAMP RT	F81UA	10A	• X88 Trailer Connector (Z82-U1D)
F82	TIM	F82UA	30A	• K68 Trailer Lighting Control Module (U1D)
F83	FTZM	F83UA	30A	• K111 Fuel Pump Driver Control Module
F84	TRLR BRK	F84UA	30A	• K133 Trailer Brake Power Control Module (JL1) • W24 Blunt Cut - Trailer Brakes Provision
F85	ENG	F85UA	15A	• B75C Multifunction Intake Air Sensor (L3B/LM2/LV3) • K20 Engine Control Module (L3B) • Q97 Engine Coolant Flow Control Valve (L3B)
F86	ECM	F86UA	30A	• K20 Engine Control Module

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F87	INJ B EVEN	F87UA	20A	• K20 Engine Control Module • T8B Ignition Coil 2 (L82/L84/L87/LV3) • T8D Ignition Coil 4 (L82/L84/L87/LV3) • T8F Ignition Coil 6 (L82/L84/L87/LV3) • T8H Ignition Coil 8 (L82/L84/L87)
F88	O2 B SNSR	F88UA	15A	• B52B Heated Oxygen Sensor 2 (L3B) • B52D Heated Oxygen Sensor - Bank 1 Sensor 2 (L82/L84/L87) • B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (L82/L84/L87) • B75C Multifunction Intake Air Sensor (L82/L84/L87) • B198 Fuel Composition Sensor (FHS) • K20 Engine Control Module (L82/L84/L87/LV3) • KR23A Fuel Pump Relay (LM2)
F89	O2 A SNSR	F89UA	15A	• B52A Heated Oxygen Sensor 1 (L3B) • B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (L82/L84/L87/LV3) • B52D Heated Oxygen Sensor - Bank 1 Sensor 2 (LV3) • B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (L82/L84/L87/LV3) • B52F Heated Oxygen Sensor Bank 2 Sensor 2 (LV3) • G58 Evaporative Emission Purge Pump (L3B) • M129A Intake Camshaft Porfile Actuator 1 (L3B) • M129B Intake Camshaft Profile Actuator 2 (L3B) • M129C Intake Camshaft Profile Actuator 3 (L3B) • M129D Intake Camshaft Profile Actuator 4 (L3B) • M130A Exhaust Camshaft Profile Actuator 1 (L3B) • M130B Exhaust Camshaft Profile Actuator 2 (L3B) • Q12 Evaporative Emission Purge Solenoid Valve (-LM2) • Q40 Turbocharger Bypass Solenoid Valve (L3B) • Q43 Valve Lifter Oil Manifold Assembly (LV3) • Q44 Engine Oil Pressure Control Solenoid Valve (L82/L84/L87/LV3) • Q97B Engine Coolant Flow Control Valve - Block (LM2)
F90	INJ A ODD	F90UA	20A	• K20 Engine Control Module • T8A Ignition Coil 1 • T8B Ignition Coil 2 (L3B) • T8C Ignition Coil 3 • T8D Ignition Coil 4 (L3B) • T8E Ignition Coil 5 (-L3B) • T8G Ignition Coil 7 (-L3B-LV3)
F91	ECM THROT CONT	F91UA	15A	• K20 Engine Control Module (L82/L84/L87/LV3)
F92	COOL FAN CLUTCH/AERO SHUTTER	F92UA	10A	• M96A Active Grille Air Shutter 1 Actuator • M96B Active Grille Air Shutter 2 Actuator (WMI)
Relays				
K5	HEAD LAMP	KR50 Headlamp Relay	—	• F3UA • F4UA
K18	DC/AC INV	KR80 Accessory Relay	—	• F19UA (KI4/KI5)

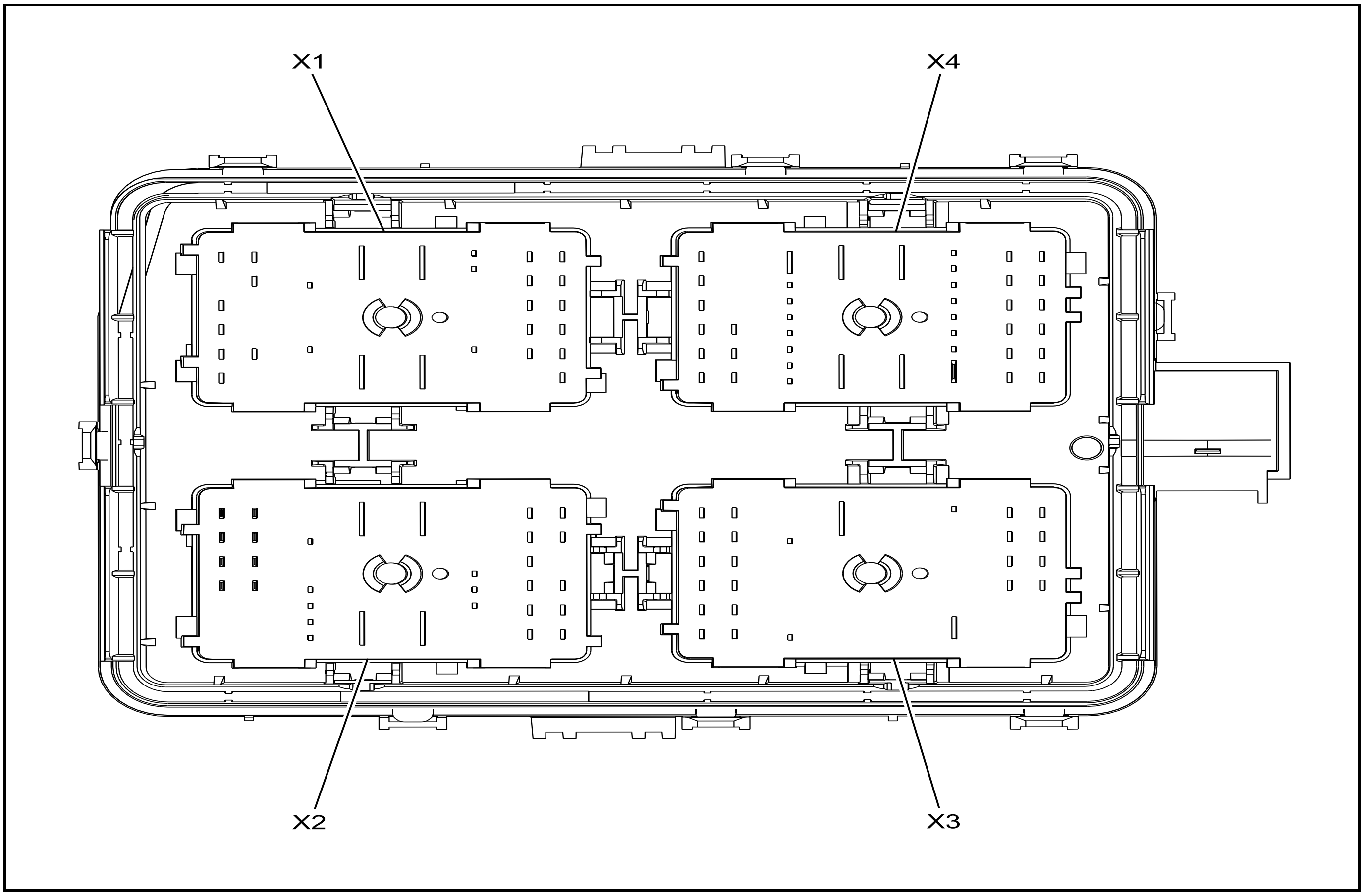
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
K23	REAR DEFOG	KR5 Rear Defogger Relay	—	• F32UA • F33UA
K35	PRK LAMP	KR53 Park Lamps Relay	—	• F34UA • F41UA • F42UA
K36	RUN/CRNK	KR73 Ignition Main Relay	—	• F37UA • F38UA • F39UA • F40UA • F44UA • F46UA • F47UA • F48UA
K43	SECD FUEL PUMP	—	—	• Not Used
K59	A/C CLTCH	KR29 A/C Compressor Clutch Relay	—	• F50UA
K64	STRTR MTR LD	KR27 Starter Motor	—	• M64 Starter Motor
K70	STRTR PINION LD	KR27C Starter Pinion Solenoid Actuator Relay	—	• M64 Starter Motor (KL9)
K77	PWR/TRN	KR75 Engine Controls Ignition Relay	—	• F60UA • F67UA • F85UA • F86UA • F87UA • F88UA • F89UA • F90UA • F91UA • F92UA • KR29 A/C Compressor Clutch Relay • KR33 Auxiliary Heater Coolant Pump Relay
Note: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
—	—	KR3 Horn Relay	—	• F27UA
—	—	KR6 Rear Window Washer Pump Relay	—	• F14UA
—	—	KR11 Windshield Washer Pump Relay	—	• F13UA
—	—	KR12B Windshield Wiper Relay	—	• M75 Windshield Wiper Motor
—	—	KR12C Windshield Wiper Speed Control Relay	—	• M75 Windshield Wiper Motor
—	—	KR33 Auxiliary Heater Coolant Pump	—	• G17 Heater Coolant Pump (KL9)
—	—	KR46 Front Fog Lamp Relay	—	• F8UA
—	—	KR48 Headlamp High Beam Relay	—	• F1UA • F2UA

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
—	—	KR53 Park Lamps Relay	—	• F34UA • F41UA • F42UA
—	—	KR59 Stop Lamp Relay	—	• F53UA
—	—	KR61 Trailer Backup Lamps Relay	—	• F54UA • F55UA
—	—	KR63L Trailer Stop/Turn Signal Lamp Relay - Left	—	• F73UA
—	—	KR63R Trailer Stop/Turn Signal Lamp Relay - Right	—	• F81UA

X50A Fuse Block - Underhood Bottom View



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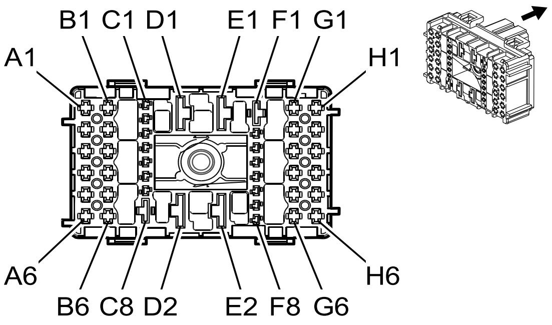
X50A Fuse Block - Underhood X1 (Crew Cab/Extended Cab)



4994109

Connector Part Information

Harness Type: Body
OEM Connector: 33384590
Service Connector: 19370824
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19332366	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	Not Required	J-35616-22 (RD)	No Tool Required	Not Available	Not Available	Not Available	Not Available

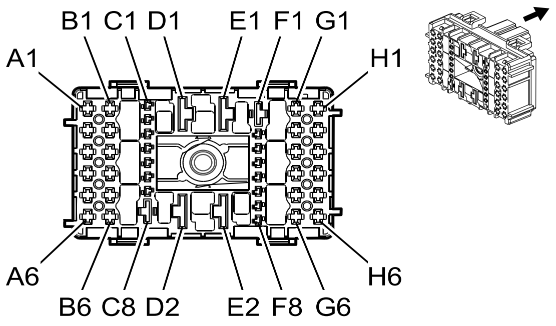
X50A Fuse Block - Underhood X1 (Crew Cab/Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A2	—	—	—	Not Occupied	—	—
A3	0.5	YE/BN	2229	Left Headlamp Relay Control	II	—
A4	0.5	BK	250	Ground	II	—
A5 - B4	—	—	—	Not Occupied	—	—
B5	0.5	GY/VT	228	Windshield Washer Pump Control	II	—
B6 - C2	—	—	—	Not Occupied	—	—
C3	0.35	WH/GN	4628	DC/AC Inverter Relay Control	I	—
C4 - C6	—	—	—	Not Occupied	—	—
C7	0.35	BN/GY	2268	Windshield Washer Relay Control	I	—
C8	—	—	—	Not Occupied	—	—
D1	10	BN/BK	4629	DC/AC Inverter Control	III	—
D2	10 6	RD/WH RD/WH	342 342	Battery Positive Voltage Battery Positive Voltage	III III	CREW CAB EXTENDED CAB
E1	10	RD/YE	442	Battery Positive Voltage	III	—
E2 - F1	—	—	—	Not Occupied	—	—
F2	0.5	BN/VT	193	Rear Defog Relay Control	I	—
F3 - F5	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X1 (Crew Cab/Extended Cab) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
F6	0.35	WH/VT	860	Front Windshield Wiper Switch High Signal	I	—
F7 - G1	—	—	—	Not Occupied	—	—
G2	2.5	BN/VT	293	Rear Defog Element Control	II	—
G3	0.5	BN/YE	2267	Mirror Heating Element Control	II	—
G4	0.35	GN/VT	5199	Run/Crank Relay Coil Control	II	—
G5	2	BK	150	Ground	II	—
G6	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	II	—
H1 - H3	—	—	—	Not Occupied	—	—
H4	0.35	VT/WH	239	Run/Crank Ignition 1 Voltage	II	—
H5	2	WH	92	Windshield Wiper Motor High Speed Control	II	—
H6	2	YE/BN	95	Windshield Wiper Motor Low Speed Control	II	—

X50A Fuse Block - Underhood X1 (Regular Cab)



4994109

Connector Part Information

Harness Type: Body
OEM Connector: 33384590
Service Connector: 19370824
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19332366	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	Not Required	J-35616-22 (RD)	No Tool Required	Not Available	Not Available	Not Available	Not Available

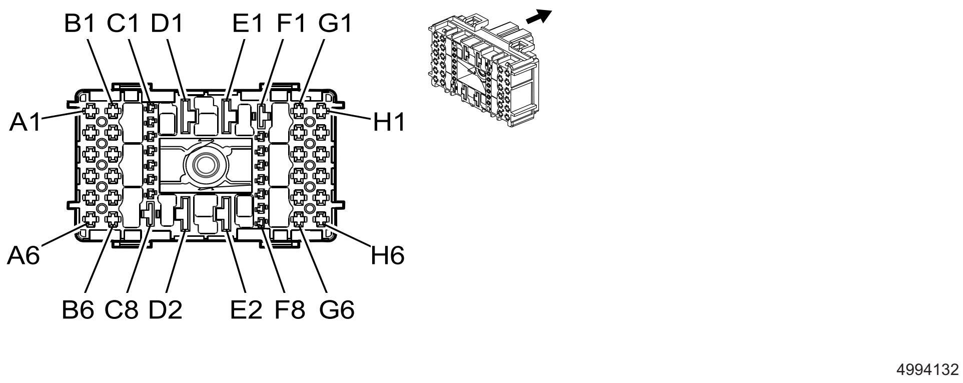
X50A Fuse Block - Underhood X1 (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A2	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X1 (Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A3	0.5	YE/BN	2229	Left Headlamp Relay Control	II	—
A4	0.5	BK	250	Ground	II	—
A5 - B4	—	—	—	Not Occupied	—	—
B5	0.5	GY/VT	228	Windshield Washer Pump Control	II	—
B6 - C2	—	—	—	Not Occupied	—	—
C3	0.35	WH/L-GN	4628	DC/AC Inverter Relay Control	I	—
C4 - C6	—	—	—	Not Occupied	—	—
C7	0.35	BN/GY	2268	Windshield Washer Relay Control	I	—
C8	—	—	—	Not Occupied	—	—
D1	10	BN/BK	4629	DC/AC Inverter Control	III	—
D2	10	RD/WH	342	Battery Positive Voltage	III	—
E1	10	RD/YE	442	Battery Positive Voltage	III	—
E2 - F1	—	—	—	Not Occupied	—	—
F2	0.5	BN/VT	193	Rear Defog Relay Control	I	—
F3 - F5	—	—	—	Not Occupied	—	—
F6	0.35	WH/VT	860	Front Windshield Wiper Switch High Signal	I	—
F7 - G1	—	—	—	Not Occupied	—	—
G2	2.5	BN/VT	293	Rear Defog Element Control	II	—
G3	0.5	BN/YE	2267	Mirror Heating Element Control	II	—
G4	0.35	L-GN/VT	5199	Run/Crank Relay Coil Control	II	—
G5	2	BK	150	Ground	II	—
G6	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	II	—
H1 - H3	—	—	—	Not Occupied	—	—
H4	0.35	VT/WH	239	Run/Crank Ignition 1 Voltage	II	—
H5	2	WH	92	Windshield Wiper Motor High Speed Control	II	—
H6	2	YE/BN	95	Windshield Wiper Motor Low Speed Control	II	—

X50A Fuse Block - Underhood X2 (Crew Cab/Extended Cab)



Connector Part Information

Harness Type: Body

OEM Connector: 33384594

Service Connector: 19371174
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (GN)

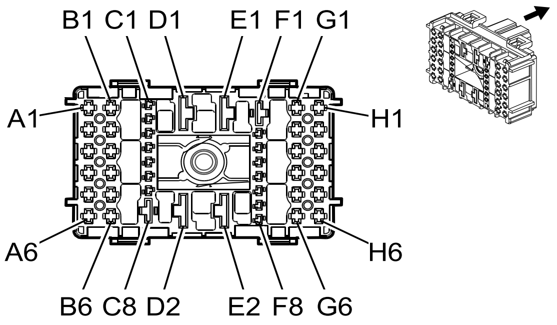
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19332366	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	Not Required	J-35616-22 (RD)	No Tool Required	Not Available	Not Available	Not Available	Not Available

X50A Fuse Block - Underhood X2 (Crew Cab/Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A2	—	—	—	Not Occupied	—	—
A3	0.75	WH	711	Left Headlamp High Beam Control	II	—
A4	0.75	WH	311	Right Headlamp High Beam Control	II	—
A5	0.75	YE	2227	Left Headlamp Control	II	—
A6	0.75	YE/GY	2226	Right Headlamp Control	II	—
B1 - B2	—	—	—	Not Occupied	—	—
B3	0.5	BN/VT	2234	Front Fog Lamp Control	II	—
B4 - B6	—	—	—	Not Occupied	—	—
C1	0.5	BU/WH	5186	Left Trailer Turn Signal Lamp Control	I	—
C2	0.5	YE/GY	5187	Right Trailer Turn Signal Lamp Control	I	—
C3	0.5	BN/WH	1317	Fog Lamp Relay Control	I	—
C4	0.35	BN/VT	1969	Headlamp High Beam Relay Control	I	—
C5 - D1	—	—	—	Not Occupied	—	—
D2	10	RD/GY	2042	Battery Positive Voltage	III	—
E1	—	—	—	Not Occupied	—	—
E2	10	RD/VT	2142	Battery Positive Voltage	III	—
F1	—	—	—	Not Occupied	—	—
F2	0.5	VT/WH	5065	Stop Lamp Relay Coil Control	III	U1D
F3	0.35	BU/BN	38	Backup Lamp Relay Control	I	—
F4	0.35	BN/WH	28	Horn Relay Control	I	—
F5 - F8	—	—	—	Not Occupied	—	—
G1	0.75	BN/GY	29	Horn Control	II	—
G2	0.35	GN/WH	24	Backup Lamp Control	II	—
G3 - H2	—	—	—	Not Occupied	—	—
H3	0.5	VT/GY	709	Left Park Lamp Control	II	—
H4	—	—	—	Not Occupied	—	—
H5	0.5	GY/BN	309	Right Park Lamp Control	II	—
H6	0.35	BU	45	Park Lamp Relay Control	II	—

X50A Fuse Block - Underhood X2 (Regular Cab)



4994132

Connector Part Information

Harness Type: Body
OEM Connector: 33384594
Service Connector: 19371174
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19332366	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	Not Required	J-35616-22 (RD)	No Tool Required	Not Available	Not Available	Not Available	Not Available

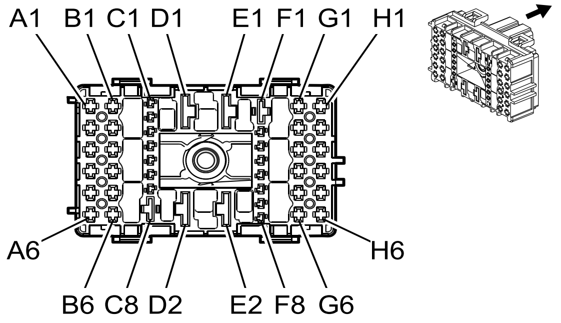
X50A Fuse Block - Underhood X2 (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A2	—	—	—	Not Occupied	—	—
A3	0.75	WH	711	Left Headlamp High Beam Control	II	—
A4	0.75	WH	311	Right Headlamp High Beam Control	II	—
A5	0.75	YE	2227	Left Headlamp Control	II	—
A6	0.75	YE/GY	2226	Right Headlamp Control	II	—
B1 - B2	—	—	—	Not Occupied	—	—
B3	0.5	BN/VT	2234	Front Fog Lamp Control	II	—
B4 - B6	—	—	—	Not Occupied	—	—
C1	0.5	BU/WH	5186	Left Trailer Turn Signal Lamp Control	I	—
C2	0.5	YE/GY	5187	Right Trailer Turn Signal Lamp Control	I	—
C3	0.5	BN/WH	1317	Fog Lamp Relay Control	I	—
C4	0.35	BN/VT	1969	Headlamp High Beam Relay Control	I	—
C5 - D1	—	—	—	Not Occupied	—	—
D2	10	RD/GY	2042	Battery Positive Voltage	III	—
E1	—	—	—	Not Occupied	—	—
E2	10	RD/VT	2142	Battery Positive Voltage	III	—
F1	—	—	—	Not Occupied	—	—
F2	0.35	VT/WH	5065	Stop Lamp Relay Coil Control	I	REGULAR CAB

X50A Fuse Block - Underhood X2 (Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
	0.5	VT/WH	5065	Stop Lamp Relay Coil Control		U1D
F3	0.35	BU/BN	38	Backup Lamp Relay Control	I	—
F4	0.35	BN/WH	28	Horn Relay Control	I	—
F5 - F8	—	—	—	Not Occupied	—	—
G1	0.75	BN/GY	29	Horn Control	II	—
G2	0.35	GN/WH	24	Backup Lamp Control	II	—
G3 - G6	—	—	—	Not Occupied	—	—
H1	0.35	VT/GY	1054	Stop Lamp Control	II	—
H2	0.5	VT/GY	709	Left Park Lamp Control	II	—
H3	0.5	VT/GY	709	Left Park Lamp Control	II	—
H4	—	—	—	Not Occupied	—	—
H5	0.5	GY/BN	309	Right Park Lamp Control	II	—
H6	0.35	BU	45	Park Lamp Relay Control	II	—

X50A Fuse Block - Underhood X3 (L3B)



4992608

Connector Part Information

Harness Type: Engine
OEM Connector: 33384584
Service Connector: 19371176
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579915	J-35616-40 (BU)	J-38125-556	Not Available	Not Available	Not Available	Not Available
II	13582285	J-35616-35 (VT)	J-38125-557	1241388-1	Lear 17	2	4
III	13582285	J-35616-35 (VT)	J-38125-557	1241388-1	Lear 17	E	C
IV	13582286	J-35616-35 (VT)	J-38125-557	1241390-1	Lear 17	F	D
V	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

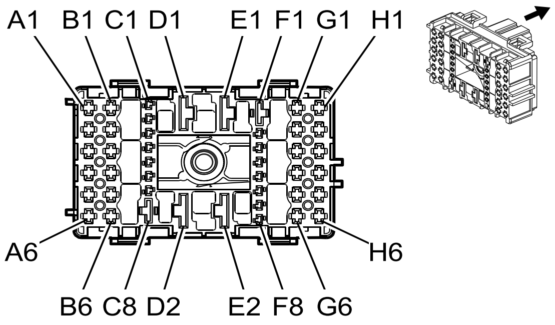
Terminal Part Information (cont'd)

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
VI	Not Required	J-35616-22 (RD)	No Tool Required	Not Available	Not Available	Not Available	Not Available

X50A Fuse Block - Underhood X3 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	III	—
A2	0.5 0.5	VT/BK VT/BK	2139 2139	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	III VI	— NP0/NQH
A3	—	—	—	Not Occupied	—	—
A4	0.5	BN/GN	59	A/C Compressor Clutch Control	III	—
A5 - A6	—	—	—	Not Occupied	—	—
B1	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	IV	—
B2	0.5	YE/BK	625	Starter Enable Relay Control	III	—
B3 - B5	—	—	—	Not Occupied	—	—
B6	3	RD/GY	1342	Battery Positive Voltage	IV	—
C1 - C2	—	—	—	Not Occupied	—	—
C3	0.5	BK	4450	Ground	V	—
C4	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	V	—
C5 - D1	—	—	—	Not Occupied	—	—
D2	10	RD/WH	342	Battery Positive Voltage	VI	—
E1	10	RD	642	Battery Positive Voltage	VI	—
E2	10	RD/VT	842	Battery Positive Voltage	VI	—
F1	2.5	YE/GN	4358	Starter Pinion Solenoid Voltage	I	—
F2	0.5	YE/VT	4325	Starter Pinion Solenoid Relay Control	V	—
F3	0.5	RD/BN	440	Battery Positive Voltage	V	—
F4	0.5	YE	5991	Powertrain Relay Coil Control	V	—
F5 - F6	—	—	—	Not Occupied	—	—
F7	0.5	VT/BU	5705	Powertrain Main Relay Fused Control 6	V	—
F8	—	—	—	Not Occupied	—	—
G1	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	III	—
G2 - G3	—	—	—	Not Occupied	—	—
G4	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	III	—
G5	1	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
G6	—	—	—	Not Occupied	—	—
H1	2	VT/BU	5290	Powertrain Main Relay Fused Supply 1	IV	—
H2	2	VT/BU	5290	Powertrain Main Relay Fused Supply 1	IV	—
H3	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	III	—
H4	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	III	—
H5 - H6	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X3 (L82)



4992608

Connector Part Information

Harness Type: Engine
OEM Connector: 33384584
Service Connector: 19371176
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13582286	J-35616-35 (VT)	J-38125-557	1241390-1	Lear 17	F	D
II	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	19332366	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	Not Required	J-35616-22 (RD)	No Tool Required	Not Available	Not Available	Not Available	Not Available

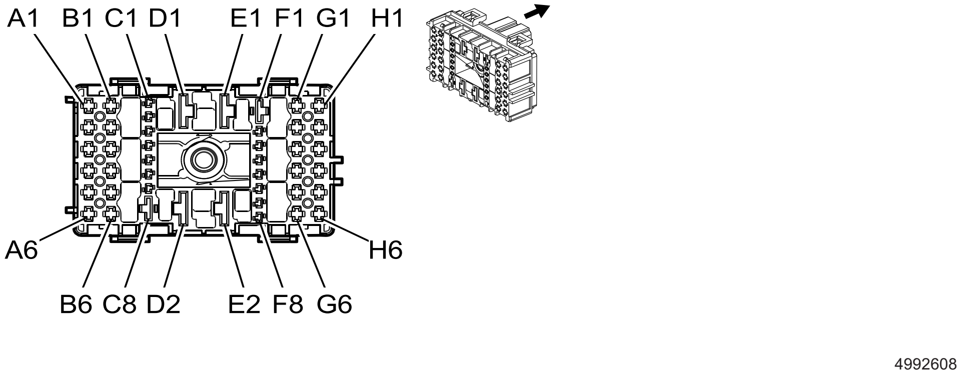
X50A Fuse Block - Underhood X3 (L82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	III	—
A2	0.5 0.5 0.5	VT/BK WH/GY WH/GY	2139 2139 2139	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	III IV	MQB/MQE MYC NP0/NQH
A3	—	—	—	Not Occupied	—	—
A4	0.5	BN/GN	59	A/C Compressor Clutch Control	III	—
A5 - A6	—	—	—	Not Occupied	—	—
B1	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	I	—
B2	0.5	YE/BK	625	Starter Enable Relay Control	III	—
B3 - B5	—	—	—	Not Occupied	—	—
B6	3	RD/GY	1342	Battery Positive Voltage	I	—
C1 - C2	—	—	—	Not Occupied	—	—
C3	1	BK	4450	Ground	II	—
C4	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
C5	0.5	VT/YE	3854	Cabin Heater Coolant Motor Control	II	—
C6	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—

X50A Fuse Block - Underhood X3 (L82) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
C7	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
C8 - D1	—	—	—	Not Occupied	—	—
D2	10	RD/WH	342	Battery Positive Voltage	IV	—
E1	—	—	—	Not Occupied	—	—
E2	10	RD/GY	642	Battery Positive Voltage	IV	—
F1	—	—	—	Not Occupied	—	—
F2	0.5	YE/VT	4325	Starter Pinion Solenoid Relay Control	II	—
F3	0.5	RD/BN	440	Battery Positive Voltage	II	—
F4	0.5	YE	5991	Powertrain Relay Coil Control	II	—
F5 - F6	—	—	—	Not Occupied	—	—
F7	0.5	VT/BU	5705	Powertrain Main Relay Fused Control 6	II	—
F8 - G1	—	—	—	Not Occupied	—	—
G2	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	III	—
G3	—	—	—	Not Occupied	—	—
G4	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	III	—
G5	1	VT/BU	5291	Powertrain Main Relay Fused Supply 2	III	—
G6	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	III	—
H1	2	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—
H2	1	VT/BU	5292	Powertrain Main Relay Fused Supply 3	III	—
H3	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	III	—
H4 - H5	—	—	—	Not Occupied	—	—
H6	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	III	—

X50A Fuse Block - Underhood X3 (L84/L87)



Connector Part Information

Harness Type: Engine
OEM Connector: 33384584
Service Connector: 19371176
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579915	J-35616-40 (BU)	J-38125-556	Not Available	Not Available	Not Available	Not Available
II	13582286	J-35616-35 (VT)	J-38125-557	1241390-1	Lear 17	F	D
III	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	19332366	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
V	Not Required	J-35616-22 (RD)	No Tool Required	Not Available	Not Available	Not Available	Not Available

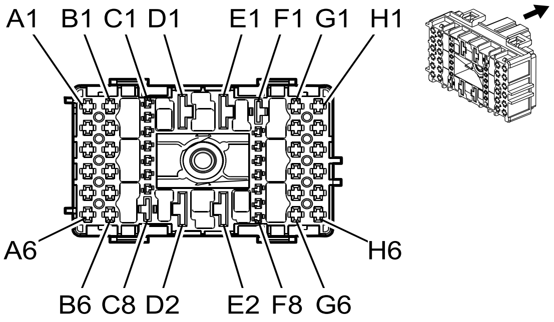
X50A Fuse Block - Underhood X3 (L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	IV	—
A2	0.5 0.5	VT/BK VT/BK	2139 2139	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	IV V	— NP0/NQH
A3	—	—	—	Not Occupied	—	—
A4	0.5	BN/GN	59	A/C Compressor Clutch Control	IV	—
A5	0.75	RD/VT	7940	Battery Positive Voltage	IV	—
A6	—	—	—	Not Occupied	—	—
B1	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	II	—
B2	0.5	YE/BK	625	Starter Enable Relay Control	IV	—
B3 - B5	—	—	—	Not Occupied	—	—
B6	3	RD/GY	1342	Battery Positive Voltage	II	—
C1 - C2	—	—	—	Not Occupied	—	—
C3	1	BK	4450	Ground	III	—
C4	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	III	—
C5	0.5	VT/YE	3854	Cabin Heater Coolant Motor Control	III	—
C6	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	III	—
C7	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	III	—
C8 - D1	—	—	—	Not Occupied	—	—
D2	10	RD/WH	342	Battery Positive Voltage	V	—
E1	—	—	—	Not Occupied	—	—
E2	10	RD/GY	642	Battery Positive Voltage	V	—
F1	2.5	YE/GN	4358	Starter Pinion Solenoid Voltage	I	—
F2	0.5	YE/VT	4325	Starter Pinion Solenoid Relay Control	III	—
F3	0.5	RD/BN	440	Battery Positive Voltage	III	—
F4	0.5	YE	5991	Powertrain Relay Coil Control	III	—
F5 - F6	—	—	—	Not Occupied	—	—
F7	0.5	VT/BU	5705	Powertrain Main Relay Fused Control 6	III	—
F8	0.5	YE/BU	5126	After Boil Heater Pump Control	III	—
G1	—	—	—	Not Occupied	—	—
G2	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	IV	—
G3	—	—	—	Not Occupied	—	—
G4	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	IV	—
G5	1	VT/BU	5291	Powertrain Main Relay Fused Supply 2	IV	—

X50A Fuse Block - Underhood X3 (L84/L87) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
G6	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	IV	—
H1	2	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
H2	1	VT/BU	5292	Powertrain Main Relay Fused Supply 3	IV	—
H3	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	IV	—
H4 - H5	—	—	—	Not Occupied	—	—
H6	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	IV	—

X50A Fuse Block - Underhood X3 (LM2)



4992608

Connector Part Information

Harness Type: Engine
OEM Connector: 33384584
Service Connector: 19371176
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13582285	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	13582285	J-35616-35 (VT)	J-38125-557	1241388-1	Lear 17	E	C
III	13582286	J-35616-35 (VT)	J-38125-557	1241390-1	Lear 17	F	D
IV	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
V	19332366	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	Not Required	J-35616-22 (RD)	No Tool Required	Not Available	Not Available	Not Available	Not Available

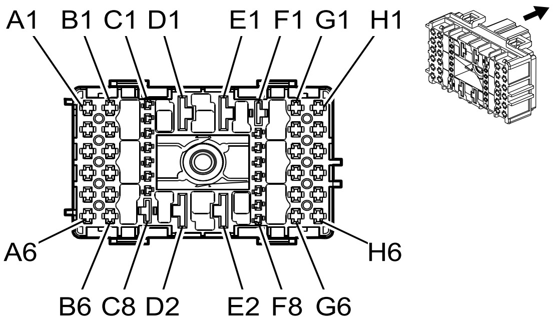
X50A Fuse Block - Underhood X3 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	II	—

X50A Fuse Block - Underhood X3 (LM2) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A2	0.5 0.5	VT/BK VT/BK	2139 2139	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	V VI	— NP0/NQH
A3	—	—	—	Not Occupied	—	—
A4	0.5	BN/GN	59	A/C Compressor Clutch Control	II	—
A5	0.75	RD/VT	7940	Battery Positive Voltage	II	—
A6	—	—	—	Not Occupied	—	—
B1	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	III	—
B2	0.5	YE/BK	625	Starter Enable Relay Control	II	—
B3 - B5	—	—	—	Not Occupied	—	—
B6	3	RD/GY	1342	Battery Positive Voltage	III	—
C1 - C2	—	—	—	Not Occupied	—	—
C3	0.5	BK	4450	Ground	IV	—
C4	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	IV	—
C5 - C8	—	—	—	Not Occupied	—	—
D1	5	RD/VT	4040	Battery Positive Voltage	VI	—
D2	10	RD/WH	342	Battery Positive Voltage	VI	—
E1 - F2	—	—	—	Not Occupied	—	—
F3	0.75	RD/BN	440	Battery Positive Voltage	IV	—
F4	0.5	YE	5991	Powertrain Relay Coil Control	IV	—
F5	—	—	—	Not Occupied	—	—
F6	0.5	YE/BU	5126	After Boil Heater Pump Control	IV	—
F7	0.5	VT/BU	5705	Powertrain Main Relay Fused Control 6	IV	—
F8	—	—	—	Not Occupied	—	—
G1	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	II	—
G2	—	—	—	Not Occupied	—	—
G3	2.5	VT/BU	5292	Powertrain Main Relay Fused Supply 3	III	—
G4	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	II	—
G5 - G6	—	—	—	Not Occupied	—	—
H1	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	III	—
H2 - H4	—	—	—	Not Occupied	—	—
H5	4	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—
H6	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X3 (LV3)



4992608

Connector Part Information

Harness Type: Engine
OEM Connector: Not Available
Service Connector: 19371176
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13582285	J-35616-35 (VT)	J-38125-557	1241388-1	Lear 17	2	4
II	13582285	J-35616-35 (VT)	J-38125-557	1241388-1	Lear 17	E	C
III	13582286	J-35616-35 (VT)	J-38125-557	1241390-1	Lear 17	C	A
IV	13582286	J-35616-35 (VT)	J-38125-557	1241390-1	Lear 17	F	D
V	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	19332366	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VII	Not Required	J-35616-22 (RD)	No Tool Required	Not Available	Not Available	Not Available	Not Available

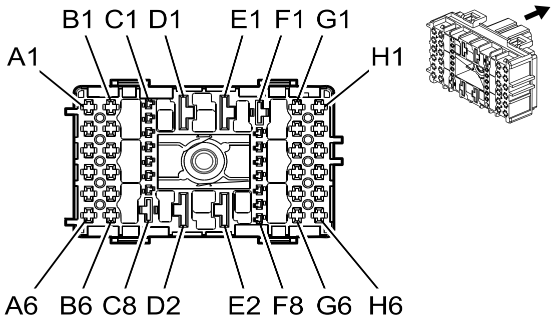
X50A Fuse Block - Underhood X3 (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	II	—
A2	0.5 0.5	VT/BK VT/BK	2139 2139	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	VI VII	— NP0/NQH
A3	—	—	—	Not Occupied	—	—
A4	0.5	BN/GN	59	A/C Compressor Clutch Control	II	—
A5 - A6	—	—	—	Not Occupied	—	—
B1	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	IV	—
B2	0.5	YE/BK	625	Starter Enable Relay Control	II	—
B3 - B5	—	—	—	Not Occupied	—	—
B6	3	RD/GY	1342	Battery Positive Voltage	IV	—
C1 - C2	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X3 (LV3) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
C3	0.5	BK	4450	Ground	V	—
C4	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	V	—
C5 - D1	—	—	—	Not Occupied	—	—
D2	10	RD/WH	342	Battery Positive Voltage	VII	—
E1	—	—	—	Not Occupied	—	—
E2	10	RD/GY	642	Battery Positive Voltage	VII	—
F1 - F3	—	—	—	Not Occupied	—	—
F4	0.5	YE	5991	Powertrain Relay Coil Control	V	—
F5 - F8	—	—	—	Not Occupied	—	—
G1	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	II	—
G2 - G3	—	—	—	Not Occupied	—	—
G4	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	II	—
G5	1	VT/BU	5291	Powertrain Main Relay Fused Supply 2	III	—
G6 - H1	—	—	—	Not Occupied	—	—
H2	1	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—
H3	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	II	—
H4 - H5	—	—	—	Not Occupied	—	—
H6	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	VI	—

X50A Fuse Block - Underhood X4



4993031

Connector Part Information

Harness Type: Chassis
OEM Connector: 33384574
Service Connector: 19371188
Description: 44-Way F 1.5, 2.8, 6.3 CTS, 9.5 MCON-LL Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13582286	J-35616-35 (VT)	J-38125-557	1241390-1	Lear 17	F	D
II	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

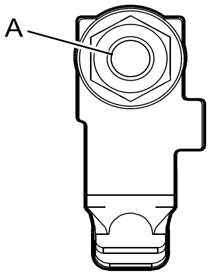
Terminal Part Information (cont'd)

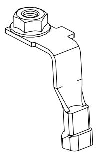
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
III	19332366	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X50A Fuse Block - Underhood X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	—	—	—	Not Occupied	—	—
A2	0.75	VT/GY	709	Left Park Lamp Control	III	—
A3	1.5	GY/BN	2109	Trailer Park Lamp Control	III	—
A4	0.75	GY/BN	309	Right Park Lamp Control	III	—
A5 - A6	—	—	—	Not Occupied	—	—
B1	0.5	GN/WH	24	Backup Lamp Control	III	—
B2	0.75	WH/GN	1624	Trailer Backup Lamp Control	III	—
B3	2	RD/GN	2440	Battery Positive Voltage	I	—
B4	0.5	RD/GN	1840	Battery Positive Voltage	III	—
B5 - C6	—	—	—	Not Occupied	—	—
C7	0.5	RD/WH	2040	Battery Positive Voltage	II	—
C8 - D1	—	—	—	Not Occupied	—	—
D2	4	RD/GN	742	Battery Positive Voltage	III	—
E1 - G2	—	—	—	Not Occupied	—	—
G3	0.75	YE/BU	318	Left Rear Trailer Stop/Turn Lamp Control	III	—
G4	2	RD/YE	5840	Battery Positive Voltage	III	—
G5	1	RD/WH	3440	Battery Positive Voltage	III	—
G6	2.5	RD/YE	1142	Battery Positive Voltage	III	—
H1 - H2	—	—	—	Not Occupied	—	—
H3	0.75	GN/VT	1619	Right Rear Trailer Stop/Turn Lamp Control	III	—
H4	2	RD/VT	5640	Battery Positive Voltage	III	—
H5	2.5	RD/VT	1940	Battery Positive Voltage	III	—
H6	2.5	RD/VT	1242	Battery Positive Voltage	III	—

X50A Fuse Block - Underhood X5





4249176

Connector Part Information

Harness Type: Generator

OEM Connector: 84386513

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way Ring Terminal

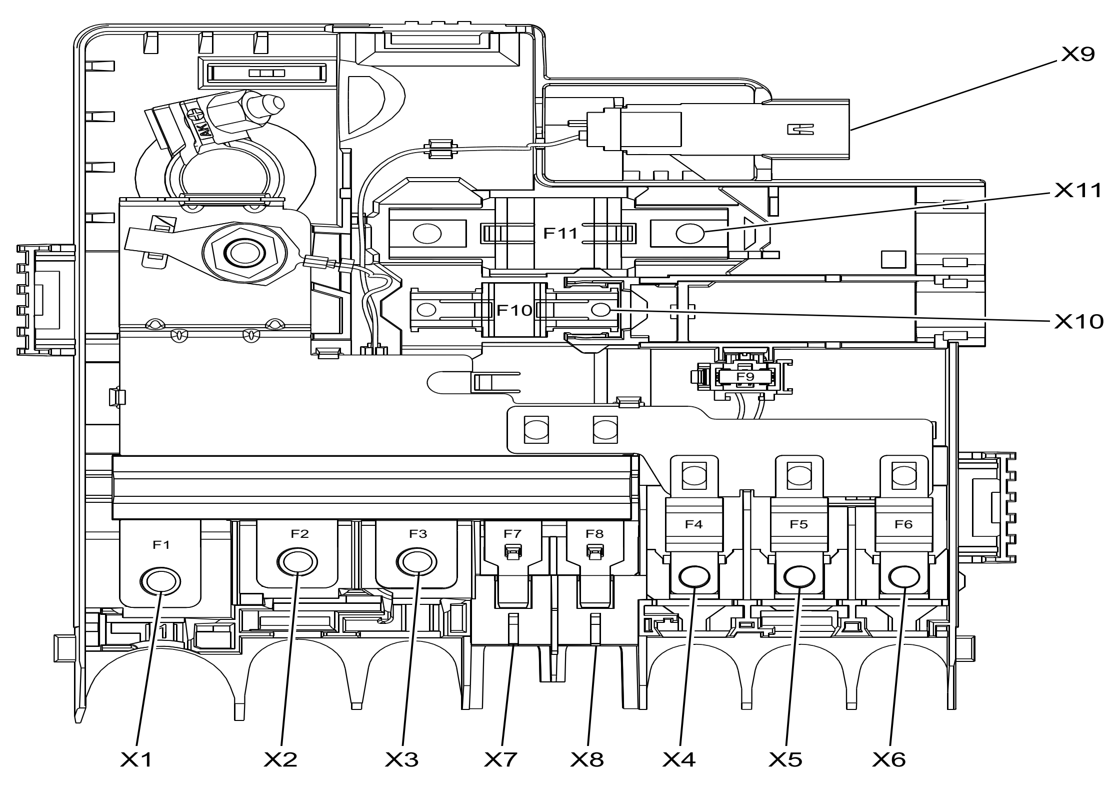
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50A Fuse Block - Underhood X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD/GN	242	Battery Positive Voltage	I	—

X50D Fuse Block - Battery Top View

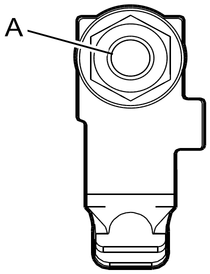


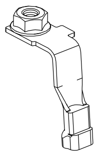
5070128

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	—	F1BA	175A (LV3/ L82/L84/ L87) 250A (L3B/LM2)	• G13 Generator • X50A Fuse Block - Underhood
F2	—	F2BA	175A	• K43 Power Steering Control Module
F3	—	F3BA	400A	• M64 Starter Motor
F4	—	F4BA	100A	• E40 Electrical Auxiliary Heater (C32)
F5	—	F5BA	80A	• K34 Glow Plug Control Module (LM2)
F6	—	F6BA	80A	• G59 Engine Coolant Pump (L3B) • G10R Cooling Fan Motor - Right (LM2)
F7	—	F7BA	60A	• X51R Fuse Block - Instrument Panel Right
F8	—	F8BA	60A	• K160 Brake System Control Module
F9	—	F9BA	5A	• B110 Battery Sensor Module (KL9) • K9 Body Control Module (-KL9)
F10	—	F10BA	60A	• X51B Fuse Block - Instrument Panel Auxiliary (LM2)
F11	—	F11BA	—	—

X50D Fuse Block - Battery X1





4249176

Connector Part Information

Harness Type: Generator
OEM Connector: 84386516
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F

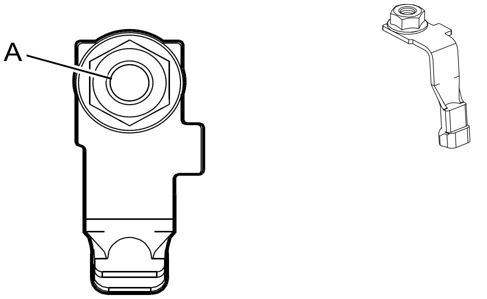
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	35	RD/YE	2	Battery Positive Voltage	I	—
	35	RD/GN	242	Battery Positive Voltage		—

X50D Fuse Block - Battery X2



4249176

Connector Part Information

Harness Type: Power Steering
OEM Connector: 84386514
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Ring Terminal

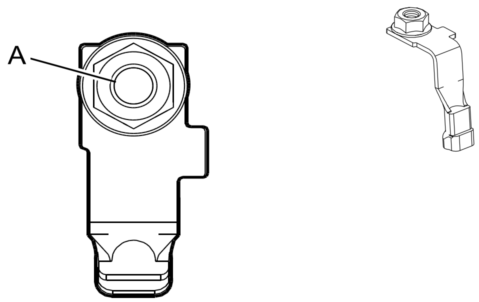
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	25	RD/VT	3542	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X3



4249176

Connector Part Information

Harness Type: Starter Motor
OEM Connector: 84386515
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Ring Terminal

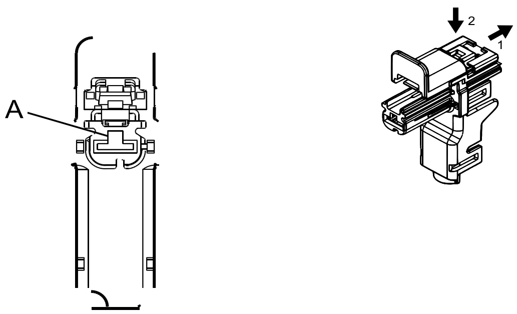
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	35	RD/YE	2	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X4 (C32)



4994183

Connector Part Information

Harness Type: Body
OEM Connector: 33297578
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Series (BK)

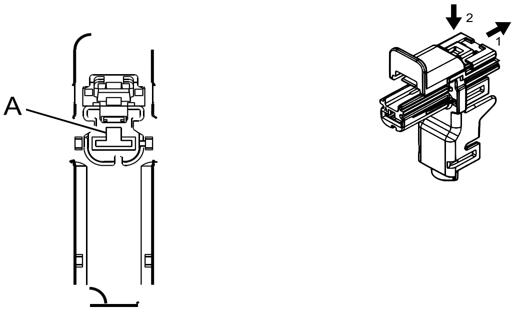
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X4 (C32)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	12	RD/GY	642	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X5 (LM2)



4994171

Connector Part Information

Harness Type: Glow Plug
OEM Connector: 33297579
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Series (BU)

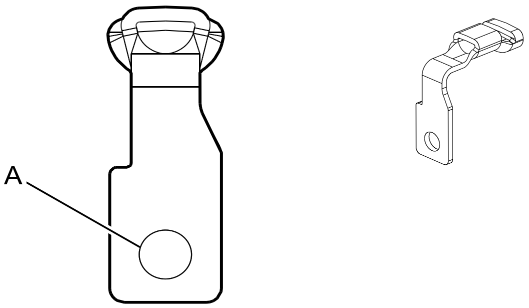
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X5 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	12	RD/VT	842	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X6 (L3B)



4994507

Connector Part Information

Harness Type: Engine
OEM Connector: 35085183
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

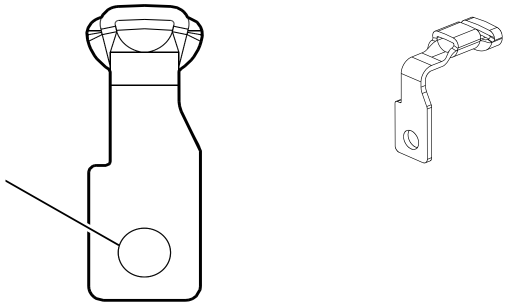
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X6 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	10	RD/BN	440	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X6 (LM2)



4994507

Connector Part Information

Harness Type: Engine
OEM Connector: 35085183
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Ring Terminal

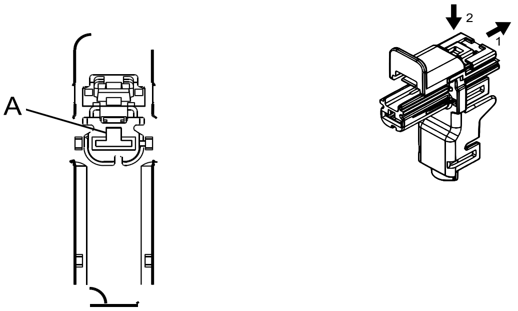
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X6 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	8	RD	642	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X7



4994183

Connector Part Information

Harness Type: Body
OEM Connector: 33297578
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Series (BK)

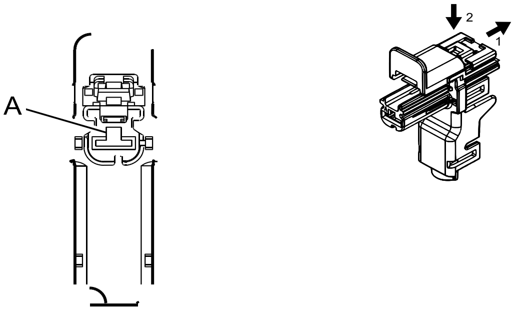
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	RD/GY	142	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X8



4994171

Connector Part Information

Harness Type: Body
OEM Connector: 33297579
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Series (BU)

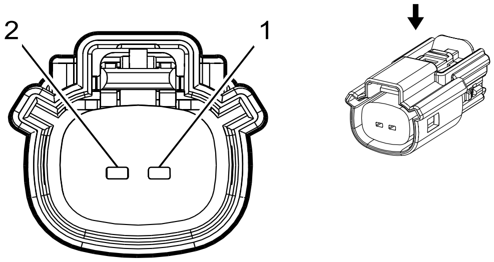
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	6	RD/VT	1640	Battery Positive Voltage	I	—

X50D Fuse Block - Battery X9



2474713

Connector Part Information

Harness Type: Body
OEM Connector: 13782480
Service Connector: 13577534
Description: 2-Way F 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X9

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/YE	2340	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—

X50D Fuse Block - Battery X10

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Connector Part Information

Harness Type: Auxiliary Instrument Panel
OEM Connector: 13624367
Service Connector: Service by Cable Assembly — See Part Catalog
Description: —

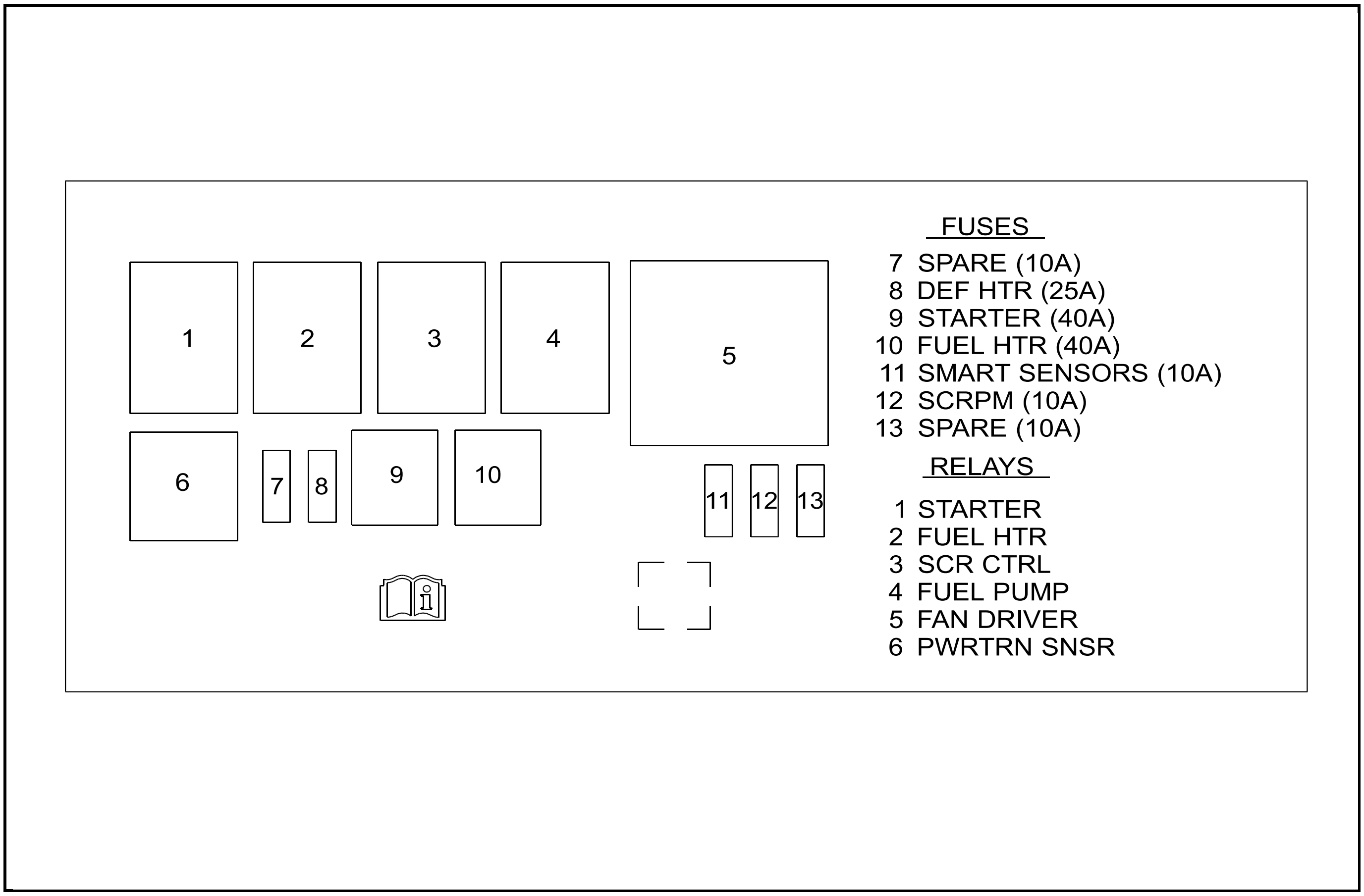
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50D Fuse Block - Battery X10

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD/BU	42	Battery Positive Voltage	I	—

X50B Fuse Block - Underhood Auxiliary Label (LM2)


1
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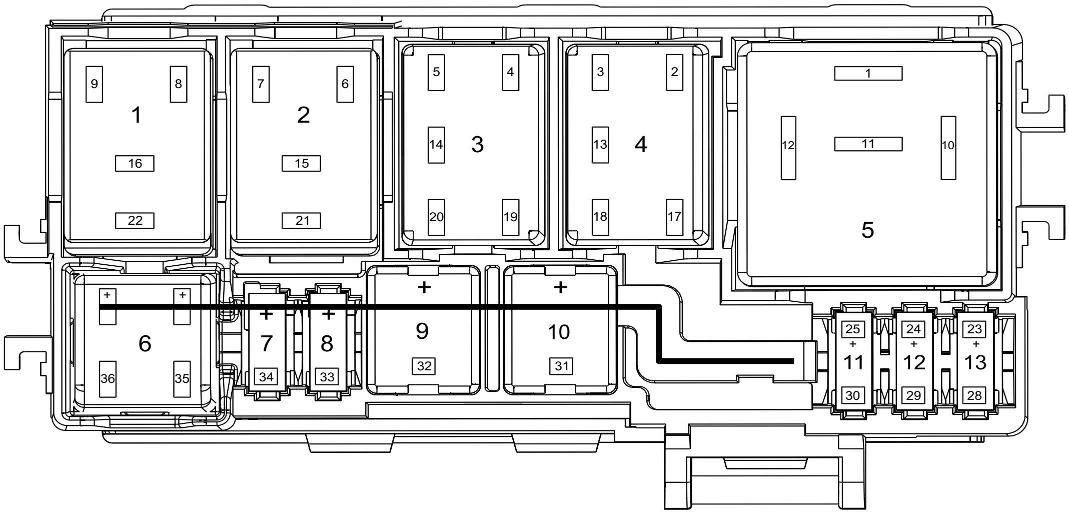
13
FUSES
7 SPARE (10A)
8 DEF HTR (25A)
9 STARTER (40A)
10 FUEL HTR (40A)
11 SMART SENSORS (10A)
12 SCRPM (10A)
13 SPARE (10A)
RELAYS
1 STARTER
2 FUEL HTR
3 SCR CTRL
4 FUEL PUMP
5 FAN DRIVER
6 PWRTRN SNSR

5118008

X50B Fuse Block - Underhood Auxiliary Top View (LM2)



5118010

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
7	SPARE	F7UB	—	• KR121B Reductant Control Module Relay 2
8	DEF HTR	F8UB	25A	• Not Used
9	STARTER	F9UB	40A	• KR121A Reductant Control Module Relay 1 • F13UB
10	FUEL HTR	F10UB	40A	• KR22 Fuel Heater Relay
11	SMART SENSORS	F11UB	10A	• B136 Exhaust Particulate Sensor • B195A Nitrogen Oxides Sensor 1 • B195B Nitrogen Oxides Sensor 2 • B195C Nitrogen Oxides Sensor 3
12	SCRPM	F12UB	10A	• K111 Fuel Pump Driver Control Module • K115 Reductant Control Module
13	SPARE	F13UB	—	• KR18 Charge Air Cooler Coolant Pump Relay
Relays				
1	STARTER	KR121A Reductant Control Module Relay 1	—	• K115 Reductant Control Module
2	FUEL HTR	KR22 Fuel Heater Relay	—	• E11A Fuel Heater/Water in Fuel Sensor

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
3	SCR CTRL	KR18 Charge Air Cooler Coolant Pump Relay	—	• M10 Charge Air Cooler Coolant Pump
4	FUEL PUMP	KR121B Reductant Control Module Relay 2	—	• F11UB • F12UB
5	FAN DRIVER	—	—	• Not Used
6	PWRTRN SNSR	—	—	• Not Used

X50B Fuse Block - Underhood Auxiliary

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Connector Part Information

Harness Type: Engine
OEM Connector: 35096237
Service Connector: Service by Component Assembly - See Part Catalog
Description: —

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13327158	J-35616-42 (RD)	J-38125-215A	Not Required	Not Required	Not Required	Not Required
II	13327178	J-35616-43 (RD)	J-38125-215A	Not Required	Not Required	Not Required	Not Required
III	13575770	J-35616-43 (RD)	J-38125-215A	Not Required	Not Required	Not Required	Not Required
IV	13582244	J-35616-42 (RD)	J-38125-215A	Not Required	Not Required	Not Required	Not Required
V	19119592	J-35616-4A (PU)	J-38125-557	Not Required	Not Required	Not Required	Not Required
VI	19332366	J-35616-35 (VT)	J-38125-215A	Not Required	Not Required	Not Required	Not Required
VII	Not Required	J-35616-22 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50B Fuse Block - Underhood Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.5	GN/BU	3889	DEF Power Module Relay Control	V	—
3	0.5	RD/BU	4540	Battery Positive Voltage	V	—
4	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	V	—
5	1	RD/GN	40	Battery Positive Voltage	V	—
6	0.5	GY/BN	7071	Heater Fuel Control	I	—
7	2.5	VT/GN	355	Fuel Filter Heater Voltage	IV	—
8	0.5	GN/BU	3889	DEF Power Module Relay Control	I	—
9	0.5	BK	4450	Ground	I	—
15	2.5	VT/GN	355	Fuel Filter Heater Voltage	IV	—
16	2.5	BU	3921	DEF Heater Supply 1	IV	—
17	1.5	GN/BU	9999	—	V	—
18	0.5	BK	4450	Ground	V	—
19	1	VT/BU	5294	Powertrain Main Relay Fused Supply 5	V	—
20	0.5	BK	4450	Ground	V	—
21	2.5	VT/GN	355	Fuel Filter Heater Voltage	IV	—
22	2.5	BU	3921	DEF Heater Supply 1	IV	—
23	2.5	RD/GN	40	Battery Positive Voltage	V	—
24	1.5	GN/GY	9999	—	VI	—
25	1.5	GN/GY	9999	—	V	—
26	10	RD/VT	4040	Battery Positive Voltage	VII	—
28	1	RD/GN	40	Battery Positive Voltage	V	—

X50B Fuse Block - Underhood Auxiliary (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
29	0.5	VT/GN	4320	Powertrain Sensor Bus Enable	V	—
30	2.5	VT/BU	3674	NOx Sensor 1 Control	VI	—
31	2.5	VT/GN	355	Fuel Filter Heater Voltage	II	—
32	2.5 2.5	BU RD/GN	3921 40	DEF Heater Supply 1 Battery Positive Voltage	III VII	— —
34	0.5	RD/BU	4540	Battery Positive Voltage	V	—

X54 Fuse Block - Snow Plow (VYU)

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Connector Part Information

Harness Type: Snow Plow Jumper
OEM Connector: 33391084
Service Connector: Service by Harness - See Part Catalog
Description: Fuse Holder

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X54 Fuse Block - Snow Plow (VYU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
B4	—	BN	25	Charge Indicator Control	I	—
B6	—	BN	9026	—	I	—
C4	—	WH/BU	9030	—	I	—
C5	—	BN	25	Charge Indicator Control	I	—

X55SP Fuse Holder - Snow Plow (VYU)

—

Connector Part Information

Harness Type: Snow Plow Jumper
OEM Connector: 33391084
Service Connector: Service by Harness - See Part Catalog
Description: Fuse Holder

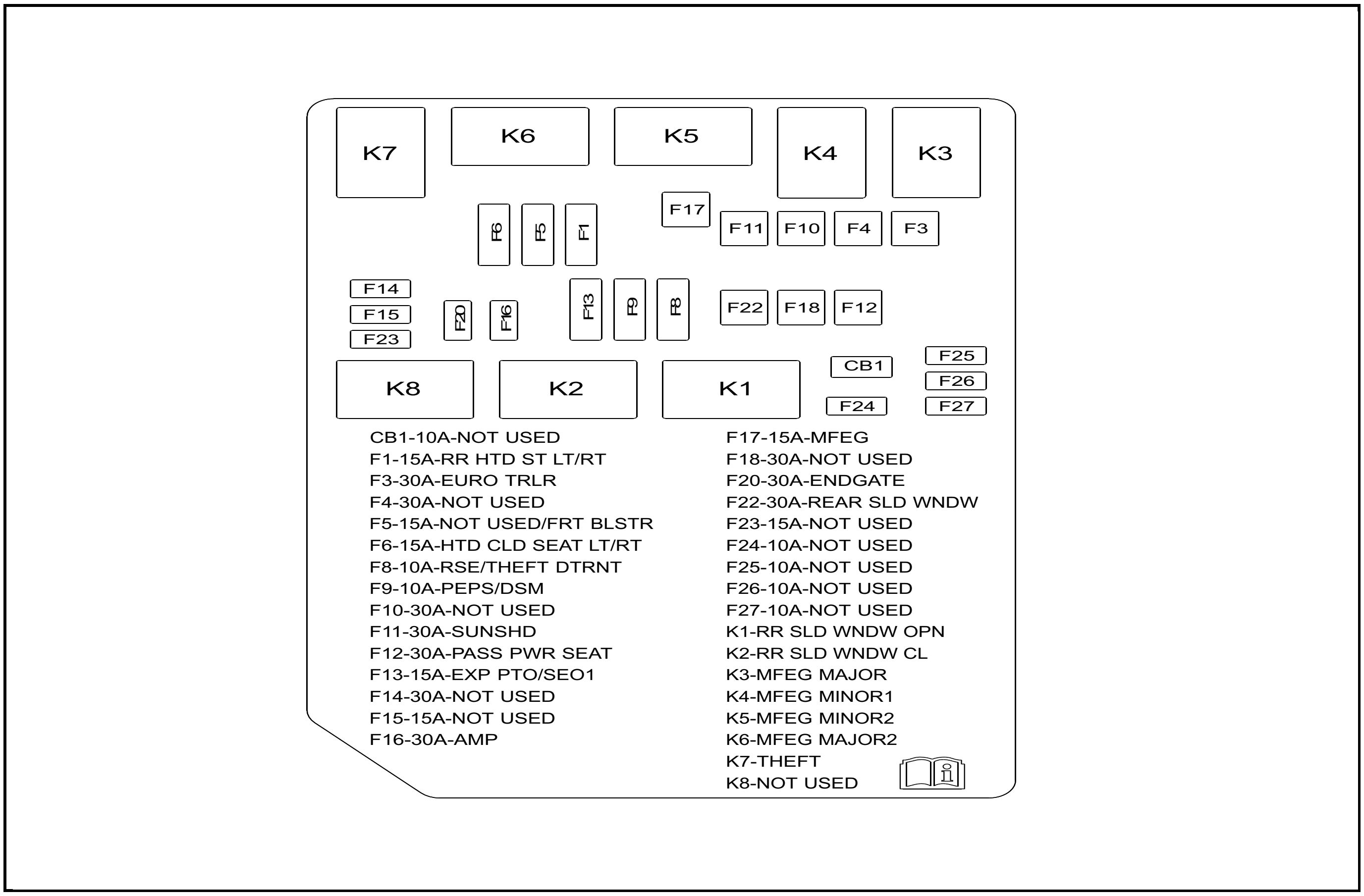
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X55SP Fuse Holder - Snow Plow (VYU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	OG	9026	—	I	—
B	1	OG	9028	—	I	—

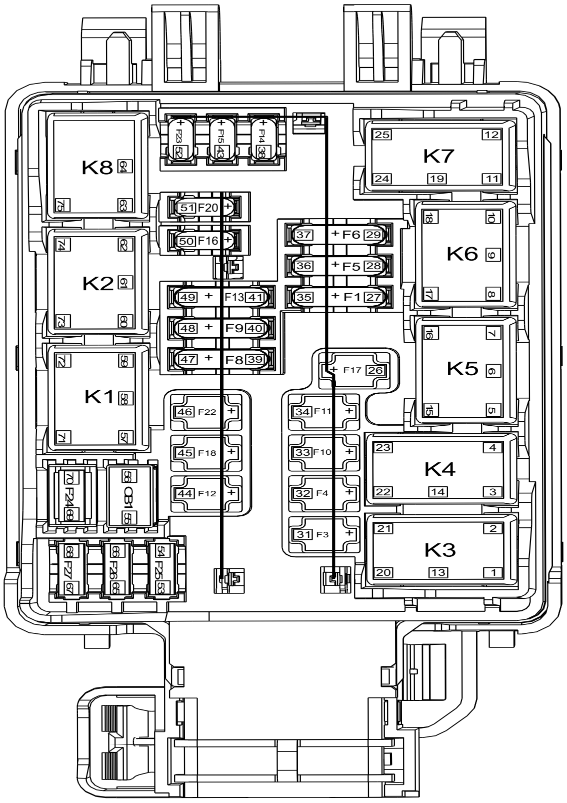
X51L Fuse Block - Instrument Panel Left Label



CB1-10A-NOT USED
F1-15A-RR HTD ST LT/RT
F3-30A-EURO TRLR
F4-30A-NOT USED
F5-15A-NOT USED/FRT BLSTR
F6-15A-HTD CLD SEAT LT/RT
F8-10A-RSE/THEFT DTRNT
F9-10A-PEPS/DSM
F10-30A-NOT USED
F11-30A-SUNSHD
F12-30A-PASS PWR SEAT
F13-15A-EXP PTO/SEO1
F14-30A-NOT USED
F15-15A-NOT USED
F16-30A-AMP
F17-15A-MFEG
F18-30A-NOT USED
F20-30A-ENDGATE
F22-30A-REAR SLD WNDW
F23-15A-NOT USED
F24-10A-NOT USED
F25-10A-NOT USED
F26-10A-NOT USED
F27-10A-NOT USED
K1-RR SLD WNDW OPN
K2-RR SLD WNDW CL
K3-MFEG MAJOR
K4-MFEG MINOR1
K5-MFEG MINOR2
K6-MFEG MAJOR2
K7-THEFT
K8-NOT USED

5085578

X51L Fuse Block - Instrument Panel Left Top View


K8
K2
K1
K7
K6
K5
K4
K3
F23
F15
F14
F20
F16
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F5
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F22
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F12
F11
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F4
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CB1
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5041380

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	Rear heated seats left/right	F1DL	15A	• K29R Seat Heating Control Module - Rear (KA6)
F3	Euro trailer	F3DL	30A	• Not Used
F4	—	F4DL	30A	• Not Used
F5	Front Bolster	F5DL	15A	• Not Used
F6	Heated and cooled seats left/right	F6DL	15A	• K29F Seat Heating Control Module - Front (KA1)
F8	Rear seat entertainment/ Theft detterent	F8DL	—	—
F9	Passive entry/ Passive start/ Driver seat module	F9DL	10A	• K84 Keyless Entry Control Module (BTM)
F10	—	F10DL	30A	• Not Used
F11	Sunshade	F11DL	30A	• Not Used
F12	Passenger power seat	F12DL	30A	• Not Used
F13	Export power take off/Special equipment option 1	F13DL	15A	• Not Used
F14	—	F14DL	30A	• Not Used

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F15	—	F15DL	15A	• Not Used
F16	AMP	F16DL	30A	• T3 Audio Amplifier (UQA)
F17	MFEG	F17DL	15A	• KR191L Pickup Box Endgate Latch Relay - Left (QT5) • KR192L Pickup Box Auxiliary Endgate Latch Relay - Left (QK2+QT5)
F18	—	F18DL	30A	• Not Used
F20	Endgate	F20DL	30A	• K194 Pickup Box Endgate Control Module (QT6)
F22	Rear sliding window	F22DL	30A	• KR8A Sliding Rear Window Close Relay (A48) • KR8B Sliding Rear Window Open Relay (A48)
F23	—	F23DL	15A	• Not Used
F24	—	F24DL	10A	• Not Used
F25	—	F25DL	10A	• Not Used
F26	—	F26DL	10A	• Not Used
F27	—	F27DL	10A	• Not Used
Circuit Breakers				
CB1	—	CB1DL	10A	• Not Used
Relays				
K1	Rear sliding window open	KR8B	—	• M63 Sliding Rear Window Motor (A48)
K2	Rear sliding window close	KR8A	—	• M63 Sliding Rear Window Motor (A48)
K3	MFEG major 1	MFEG1A	—	• A99L Pickup Box Endgate Latch - Left (QK2) • A99R Pickup Box Endgate Latch - Right (QK2) • Pickup Box Endgate Latch (QK1)
K4	MFEG minor 1	MFEG1B	—	• A99L Pickup Box Endgate Latch - Left (QK2) • A99R Pickup Box Endgate Latch - Right (QK2) • Pickup Box Endgate Latch (QK1)
K5	MFEG minor 2	MFEG2B	—	• A100L Pickup Box Auxiliary Endgate Latch - Left (QK2) • A100R Pickup Box Auxiliary Endgate Latch - Right (QK2)
K6	MFEG major 2	MFEG2A	—	• A100L Pickup Box Auxiliary Endgate Latch - Left (QK2) • A100R Pickup Box Auxiliary Endgate Latch - Right (QK2)
K7	Anti-theft	—	—	—
K8	—	—	—	—

X51L Fuse Block - Instrument Panel Left Bottom View

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Connector Part Information

Harness Type: Body
OEM Connector: 33333390
Service Connector: Service by Component Assembly - See Part Catalog
Description: —

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575574	J-35616-5 (PU)	J-38125-215A	Not Required	Not Required	Not Required	Not Required
II	19332366	J-35616-35 (VT)	J-38125-215A	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-22 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

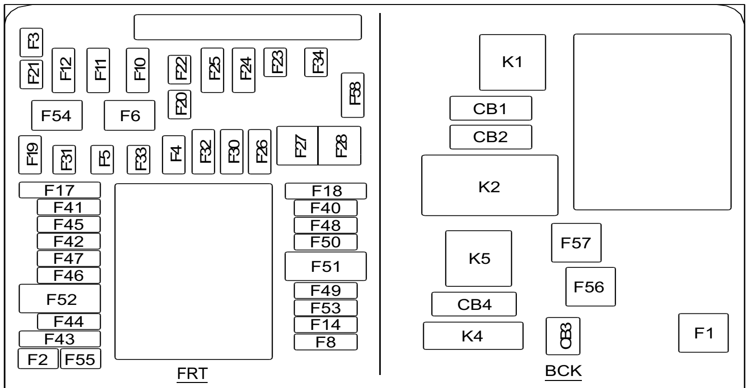
X51L Fuse Block - Instrument Panel Left Bottom View

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/GN	7728	Major Endgate High Relay Control	II	—
2	0.5	GN	1299	Major Endgate Motor Supply Voltage	II	—
3	0.35	WH/GY	7297	Minor Endgate High Relay Control	II	—
4	0.5	VT	7725	Minor Endgate Motor Supply Voltage	II	—
5	0.5	BK	1150	Ground	II	—
6	0.5	BN/YE	7727	Minor Endgate Motor Common	II	—
7	0.35	GY/BU	7298	Minor Endgate Low Relay Control	II	—
8	0.5 0.5	BK BK	1150 1150	Ground Ground	II	— QT5
9	0.5	BN/VT	7731	Major Endgate Motor Common	II	—
10	0.35	BU/VT	7729	Major Endgate Low Relay Control	II	—
13	0.5	BN/VT	7731	Major Endgate Motor Common	II	—
14	0.5	BN/YE	7727	Minor Endgate Motor Common	II	—
15	0.5 0.5	BK BK	1150 1150	Ground Ground	II	— QK2+QT5
16	0.5	BN/BK	7726	Minor Endgate Motor Return	II	—
17	0.5 0.5	BK BK	1150 1150	Ground Ground	II	— QT5
18	0.5	YE/BK	7730	Major Endgate Motor Return	II	—
20	0.5	RD/BU	7640	Battery Positive Voltage	II	—
21	0.5	BK	1150	Ground	II	—
22	0.5	RD/BU	7640	Battery Positive Voltage	II	—
23	0.5 0.5	BK BK	1150 1150	Ground Ground	II	— —
26	0.5 0.5	RD/BU RD/BU	7640 7640	Battery Positive Voltage Battery Positive Voltage	I II	— QK2+QT5
27	0.5	RD/YE	240	Battery Positive Voltage	II	KA6
29	0.5	RD/GN	5140	Battery Positive Voltage	II	—

X51L Fuse Block - Instrument Panel Left Bottom View (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
30	10	RD/GY	2042	Battery Positive Voltage	III	—
35	0.5	RD/VT	340	Battery Positive Voltage	II	KA6
37	0.5	RD	6140	Battery Positive Voltage	II	—
40	0.5	RD/YE	4340	Battery Positive Voltage	II	—
42	10	RD/VT	2142	Battery Positive Voltage	III	—
44	2.5	RD/BN	1440	Battery Positive Voltage	I	—
46	2.5	RD/VT	3340	Battery Positive Voltage	I	A48
50	2.5	RD/YE	3740	Battery Positive Voltage	II	UQA
51	2.5	RD/GY	7040	Battery Positive Voltage	II	QT6
57	2.5	RD/VT	3340	Battery Positive Voltage	II	A48
58	2.5	BK	1150	Ground	II	A48
59	0.5	BK	1150	Ground	II	A48
60	2.5	RD/VT	3340	Battery Positive Voltage	II	A48
61	2.5	BK	1150	Ground	II	A48
62	0.5	BK	1150	Ground	II	A48
71	0.35	YE/VT	6191	Power Sliding Window Switch Open Signal	II	A48
72	2.5	GY/GN	5441	Endgate Window Regulator Down Signal	II	A48
73	0.35	WH	6192	Power Sliding Window Switch Close Signal	II	A48
74	2.5	YE/BU	5442	Endgate Window Regulator Up Signal	II	A48

X51R Fuse Block - Instrument Panel Right Label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F57
F56
CB4
K4
CB3
F1
BCK

CB1-15A-APO2
CB2-15A-APO1/LTR
CB3-15A-APO3
CB4-15A-APO4
F1-30A-LT DR
F2-30A-RT DR
F3-10A-UGDO
F4-2A-NOT USED
F5-20A-NOT USED
F6-40A-FRT BLWR
F8-15A-LUM
F10-15A-SEO/DLC
F11-10A-SEAT/CLM
F12-15A-BCM3/BCM5
F14-10A-MIR/WDO MDL
F17-2A-STR WHL CNTRL
F18-10A-VPM/OBS DET
F19-2A-DLIS
F20-15A-COOL SEAT
F21-10A-NOT R/C
F22-7.5A-HTD WHL
F23-10A-MISC R/C
F24-10A-IPC IGN/OVRHD
F25-15A-HVAC IGN/HVAC AUX
F26-10A-USB/SEO RAP
F27-50A-APO/RAP
F28-50A-APO/BATT
F30-10A-SDM/PRK BRK
F31-20A-BCM4
F32-15A-BCM6/BCM7
F33-30A-BCM8
F34-15A-CARGO LAMP
F40-10A-CGM
F41-10A-INFO1
F42-10A-TCP
F43-10A-NOT USED
F44-10A-AVM
F45-15A-BCM2
F46-10A-HVAC/BATT1
F47-10A-IPC/BATT
F48-20A-TCM
F49-15A-BCM1
F50-10A-NOT USED
F51-40A-BATT1
F52-40A-BATT2
F53-10A-NOT USED
F54-40A-SUNROOF
F55-30A-DR PWR SEAT
F56-40A-DC DC TRANS1
F57-40A-DC DC TRANS2
F58-15A-INFO2
K1-RUN CRNK
K2-RAP/ACCY1
K4-RAP/ACCY2
K5-NOT USED

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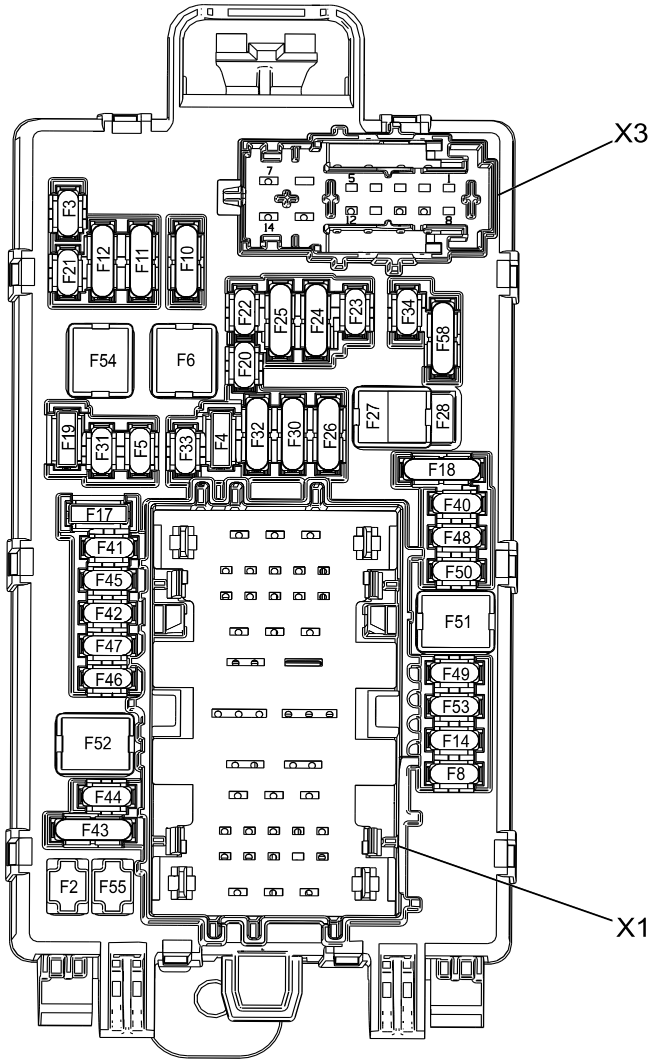
X51R Fuse Block - Instrument Panel Right Top View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5041376

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F2	RT DR	F2DR	30A	• M74P Window Motor - Passenger (AEF) • S79P Window Switch - Passenger (AED/AEF) • S79RR Window Switch - Right Rear (AEQ)
F3	UGDO	F3DR	10A	• A98 Front Overhead Console Assembly • E37B Dome/Reading Lamps - 2nd Row (Extended Cab/Crew Cab)
F4	NOT USED	F4DR	2A	—
F5	NOT USED	F5DR	20A	—
F6	FRT BLWR	F6DR	40A	• M8 Blower Motor
F8	LUM	F8DR	15A	• S65D Seat Lumbar Support Switch - Driver (A2X) • S65P Seat Lumbar Support Switch - Passenger (A7K)

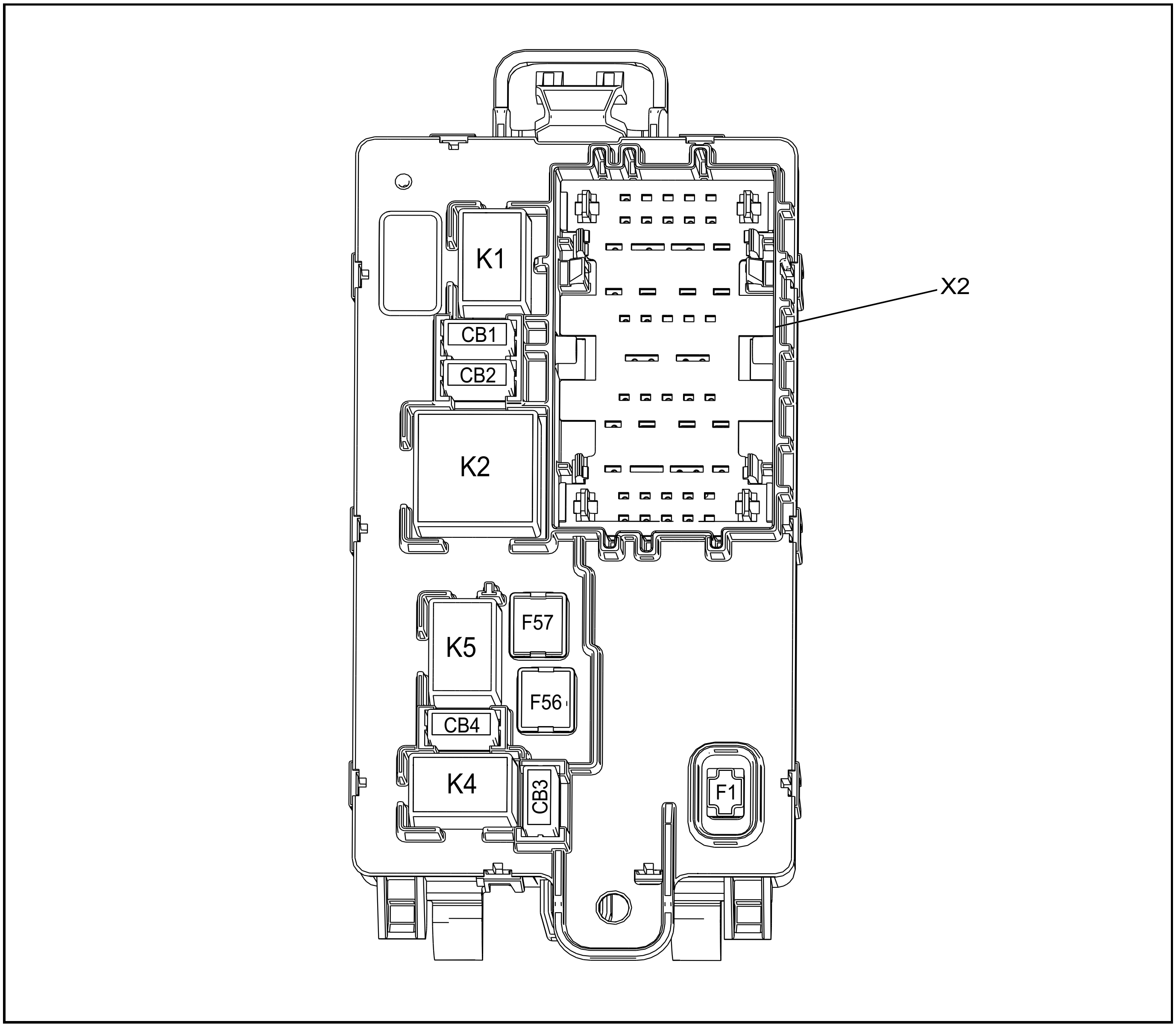
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F10	SEO/DLC	F10DR	15A	• K9 Body Control Module
F11	SEAT/CLM	F11DR	10A	• F19DR (-BTM) • K40 Seat Memory Control Module (A45) • K60 Steering Column Lock Module (BTM)
F12	BCM3/BCM5	F12DR	15A	• K9 Body Control Module
F14	MIR/WDO MDL	F14DR	10A	• S146 Window/Outside Rearview Mirror Switch - Driver (AXG)
F17	STR WHL CNTRL	F17DR	2A	• S70L Steering Wheel Controls Switch - Left (K34) • S70R Steering Wheel Controls Switch - Right (K34)
F18	VPM/OBS DET	F18DR	10A	• B174W Frontview Camera - Windshield (UEU/UHX) • K157 Video Processing Control Module (UVI/UV2) • K182 Parking Assist Control Module (UD5/UD7)
F19	DLIS	F19DR	2A	• S39 Ignition Switch (-BTM)
F20	COOL SEAT	F20DR	15A	• M73A Seat Blower Motor - Driver Back (KQV) • M73B Seat Blower Motor - Passenger Back (KQV) • M73C Seat Blower Motor - Driver Cushion (KQV) • M73D Seat Blower Motor - Passenger Cushion (KQV)
F21	NOT R/C	F21DR	10A	• K60 Steering Colmn Lock Module (BTM)
F22	HTD WHL	F22DR	7.5A	• K32 Steering Wheel Heating Control Module (KI3)
F23	MISC R/C	F23DR	10A	• B87 Rearview Camera (UVC) • T19 Power Supply Transformer (KL9)
F24	IPC IGN/OVRHD	F24DR	10A	• A10 Inside Rearview Mirror (DD8/DRZ) • A98 Front Overhead Console Assembly • K56 Serial Data Gateway Module • P16 Instrument Cluster • P43 Collision Alert Indicators ((UHX/UEU)-UV6)
F25	HVAC IGN/ HVAC AUX	F25DR	15A	• E40 Electrical Auxiliary Heater (C32)
F26	USB/SEO RAP	F26DR	10A	• A98 Front Overhead Console Assembly • K34 Glow Plug Control Module (LM2) • T22 Mobile Device Wireless Charger Module (K4C) • X92B USB Receptacle - Rear Seat (AZ3) • X92C USB Receptacle - Center Console Rear (D07) • X260
F27	APO/RAP	F27DR	50A	• CB1DR • CB2DR
F28	APO/BATT	F28DR	50A	• CB1DR • CB2DR
F30	SDM/PRK BRK	F30DR	10A	• B80 Park Brake Switch • K85 Passenger Presence Module • K36 Inflatable Restraint Sensing and Diagnostic Module • S76 Trailer Brake Control Switch (JL1)
F31	BCM4	F31DR	20A	• K9 Body Control Module
F32	BCM6/BCM7	F32DR	10A	• X84 Data Link Connector
F33	BCM8	F33DR	30A	• K9 Body Control Module
F34	CARGO LAMP	F34DR	15A	• E2A Marker Lamp - Endgate (QT5/QT6) • E6 Center High Mounted Stop Lamp • S30 Headlamp Switch (QT5/QT6)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F40	CGM	F40DR	10A	• K56 Serial Data Gateway Module
F41	INFO1	F41DR	10A	• A26 HVAC Controls • P17 Info Display Module (IOS/IOT/(IOR+UIJ)) • P29 Head-Up Display (UV6) • S32R Seat Heating Switch - Rear (KA6) • X83 Auxiliary Audio Input • X92 USB Receptacle
F42	TCP	F42DR	10A	• K73 Telematics Communication Interface Control Module (UE1)
F43	NOT USED	F43DR	10A	—
F44	AVM	F44DR	10A	• Q80L Engine Mount Solenoid Valve - Left (L3B/LM2) • Q80R Engine Mount Solenoid Valve - Right (L3B/LM2)
F45	BCM2	F45DR	15A	• K9 Body Control Module
F46	HVAC/BATT1	F46DR	10A	• K33 HVAC Control Module
F47	IPC/BATT	F47DR	10A	• P16 Instrument Cluster
F48	TCM	F48DR	20A	• K71 Transmission Control Module (MQB/MQE) • Q8 Control Solenoid Valve Assembly (MYC)
F49	BCM1	F49DR	15A	• K9 Body Control Module
F50	NOT USED	F50DR	10A	—
F51	BATT1	F51DR	40A	• F18DR (-KL9) • F40DR (-KL9) • F48DR (-KL9) • F49DR (-KL9) • F58DR (-KL9)
F52	BATT2	F52DR	40A	• F17DR (-KL9) • F41DR (-KL9) • F42DR (-KL9) • F44DR (-KL9) • F45DR (-KL9) • F46DR (-KL9) • F47DR (-KL9)
F53	NOT USED	F53DR	10A	—
F54	SUNROOF	F54DR	40A	• M69 Sunroof Motor (CF5)
F55	DR PWR SEAT	F55DR	30A	• S64D Seat Adjuster Switch - Driver (A2X-A45) • K40 Seat Memory Control Module (A45)
F58	INFO2	F58DR	15A	• A11 Radio

X51R Fuse Block - Instrument Panel Right Bottom View



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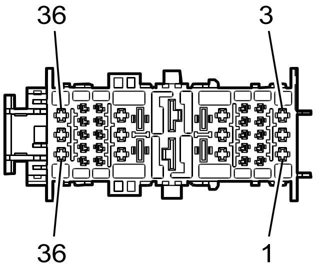
Usage Table

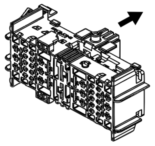
No.	Device Label Name	Device Assigned Name	Rating	Description
Circuit Breakers				
CB1	APO2	CB1DR	15A	• X80G Accessory Power Receptacle - Instrument Panel
CB2	APO1/LTR	CB2DR	15A	• X80L Accessory Power Receptacle - Center Console Rear (D07) • X80M Accessory Power Receptacle - Rear Seat (AZ3)
CB3	APO3	CB3DR	15A	—
CB4	APO4	CB4DR	15A	—
Fuses				
F1	LT DR	F1DR	30A	• M74D Window Motor - Driver (AXG) • S79LR Window Switch - Left Rear (AEQ)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F56	DC DC TRANS1	F56DR	40A	• T19 Power Supply Transformer (KL9)
F57	DC DC TRANS2	F57DR	40A	• T19 Power Supply Transformer (KL9)
Relays				
K1	RUN CRANK	KR73 Ignition Main Relay	—	• F20DR • F21DR • F22DR • F23DR • F24DR • F25DR
K2	RAP/ACCY1	KR76A Retained Accessory Power Relay 1	—	• F26DR • F27DR
K4	RAP/ACCY2	KR76B Retained Accessory Power Relay 2	—	• CB3DR • CB4DR
K5	NOT USED	—	—	—

X51R Fuse Block - Instrument Panel Right X1 (Regular Cab)





4994712

Connector Part Information

Harness Type: Body
OEM Connector: 33371909
Service Connector: 19371181
Description: 38-Way F 1.5, 2.8, 6.3 CTS Series (BU)

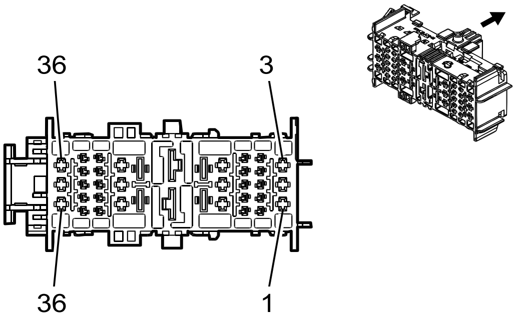
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19332366	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	19370816	J-35616-42 (RD)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	19371175	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
V	Not Required	J-35616-42 (RD)	No Tool Required	Not Available	Not Available	Not Available	Not Available

X51R Fuse Block - Instrument Panel Right X1 (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	1	RD/L-GN	1840	Battery Positive Voltage	II	—
4	—	—	—	Not Occupied	—	—
5	0.5	RD/L-GN	4440	Battery Positive Voltage	IV	—
6	0.35	VT/YE	143	Accessory Ignition Voltage	I	—
7	—	—	—	Not Occupied	—	—
8	0.35 0.35 0.35	VT VT/YE VT/YE	4601 43 43	Retained Accessory Power Fused Control Accessory Ignition Voltage Accessory Ignition Voltage	IV IV I	K4C LM2 LM2/L5P
9	0.35	RD/GN	3140	Battery Positive Voltage	I	—
10	0.35 0.35	GY/GN GY/VT	4083 755	RAP Relay 2 Coil Control RAP Relay Coil Control	I I	BTM -BTM
11	—	—	—	Not Occupied	—	—
12	0.5	VT/GN	1739	Run/Crank Ignition 1 Voltage	IV	—
13	0.5	VT/GN	1739	Run/Crank Ignition 1 Voltage	IV	—
14	0.35	RD/BN	1140	Battery Positive Voltage	II	—
15	0.35	GN/VT	5199	Run/Crank Relay Coil Control	II	—
16	1.5	RD/WH	1040	Battery Positive Voltage	II	—
17	2.5	RD/YE	2172	12V Regulated Supply Voltage 1	III	—
18	2.5	RD/YE	8140	Battery Positive Voltage	III	—
19	10	RD/GY	142	Battery Positive Voltage	V	—
20	10	RD/WH	342	Battery Positive Voltage	V	—
21	2.5	RD/GN	2173	12V Regulated Supply Voltage 2	III	—
22	2.5	RD/WH	8040	Battery Positive Voltage	III	—
23	—	—	—	Not Occupied	—	—
24	2.5	RD/BU	1842	Battery Positive Voltage	II	—
25	2.5	RD/WH	1340	Battery Positive Voltage	II	—
26	—	—	—	Not Occupied	—	—
27	0.35	RD/GN	40	Battery Positive Voltage	I	—
28	—	—	—	Not Occupied	—	—
29	0.35	RD/VT	1940	Battery Positive Voltage	I	—
30	0.75	RD/YE	8840	Battery Positive Voltage	IV	—
31	—	—	—	Not Occupied	—	—
32	0.35	BN/WH	1429	Standing Lamp Relay Control	I	—
33 - 35	—	—	—	Not Occupied	—	—
36	2.5	RD/YE	5040	Battery Positive Voltage	II	—
37 - 38	—	—	—	Not Occupied	—	—

X51R Fuse Block - Instrument Panel Right X1 (Extended Cab/Crew Cab)



4994712

Connector Part Information

Harness Type: Body
OEM Connector: 33371909
Service Connector: 19371181
Description: 38-Way F 1.5, 2.8, 6.3 CTS Series (BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19332366	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	19370816	J-35616-42 (RD)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	19371175	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
V	Not Required	J-35616-42 (RD)	No Tool Required	Not Available	Not Available	Not Available	Not Available

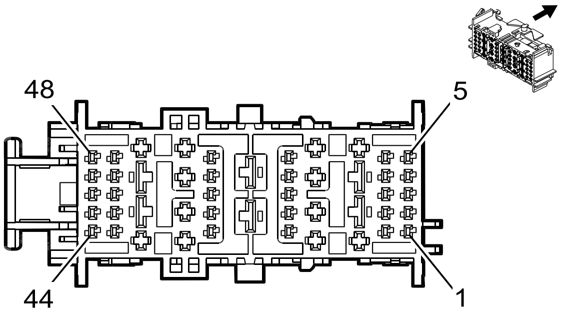
X51R Fuse Block - Instrument Panel Right X1 (Extended Cab/Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/WH	4939	Run/Crank Ignition 1 Voltage	II	—
2	—	—	—	Not Occupied	—	—
3	1	RD/GN	1840	Battery Positive Voltage	II	—
4	0.5	RD/WH	3440	Battery Positive Voltage	IV	—
5	0.5 0.5	RD/GN RD/GN	4440 4440	Battery Positive Voltage Battery Positive Voltage	IV V	— —
6	0.35	VT/YE	143	Accessory Ignition Voltage	I	—
7	—	—	—	Not Occupied	—	—
8	0.35 0.35 0.35	VT/YE VT VT/YE	43 4601 43	Accessory Ignition Voltage Retained Accessory Power Fused Control Accessory Ignition Voltage	IV V I	K4C K4C -K4C
9	0.35	RD/GN	3140	Battery Positive Voltage	I	—
10	0.35 0.35	GY/GN GY/VT	4083 755	RAP Relay 2 Coil Control RAP Relay Coil Control	I I	CREW CAB EXTENDED CAB
11	0.35	RD/VT	1640	Battery Positive Voltage	IV	—

X51R Fuse Block - Instrument Panel Right X1 (Extended Cab/Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
12	0.5	VT/GN	1739	Run/Crank Ignition 1 Voltage	IV	—
13	0.5	VT/GN	1739	Run/Crank Ignition 1 Voltage	IV	—
14	0.35	RD/BN	1140	Battery Positive Voltage	II	—
15	0.35	GN/VT	5199	Run/Crank Relay Coil Control	II	—
16	1.5	RD/WH	1040	Battery Positive Voltage	II	—
17	2.5	RD/YE	2172	12V Regulated Supply Voltage 1	III	—
18	2.5	RD/YE	8140	Battery Positive Voltage	III	—
19	10	RD/GY	142	Battery Positive Voltage	V	—
20	10	RD/WH	342	Battery Positive Voltage	V	—
21	2.5	RD/GN	2173	12V Regulated Supply Voltage 2	III	—
22	2.5	RD/WH	8040	Battery Positive Voltage	III	—
23	2.5	RD/BU	1842	Battery Positive Voltage	II	—
24	2.5	RD/BU	1842	Battery Positive Voltage	II	—
25	2.5	RD/WH	1340	Battery Positive Voltage	II	—
26	—	—	—	Not Occupied	—	—
27	0.35	RD/GN	40	Battery Positive Voltage	I	—
28	—	—	—	Not Occupied	—	—
29	0.35	RD/VT	1940	Battery Positive Voltage	I	—
30	0.75	RD/YE	8840	Battery Positive Voltage	IV	—
31	—	—	—	Not Occupied	—	—
32	0.35	BN/WH	1429	Standing Lamp Relay Control	I	—
33 - 35	—	—	—	Not Occupied	—	—
36	2.5	RD/YE	5040	Battery Positive Voltage	II	—
37	2.5	RD/WH	1340	Battery Positive Voltage	II	—
38	—	—	—	Not Occupied	—	—

X51R Fuse Block - Instrument Panel Right X2



4997272

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33371910
Service Connector: 19371180
Description: 48-Way F 1.5, 2.8, 6.3 CTS Series (GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579915	J-35616-40 (BU)	J-38125-556	Not Available	Not Available	Not Available	Not Available
II	13579921	J-35616-40 (BU)	J-38125-556	1241406-1	Lear 17	F	1
III	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	19332366	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
V	19370816	J-35616-42 (RD)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	19371175	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

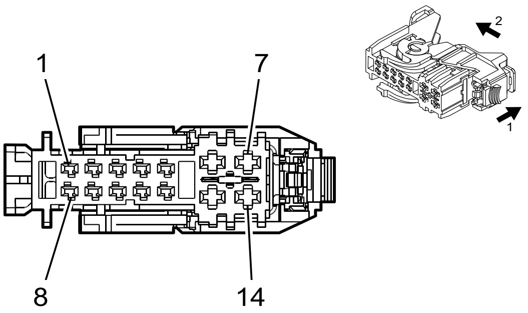
X51R Fuse Block - Instrument Panel Right X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1050	Ground	VI	—
2 - 5	—	—	—	Not Occupied	—	—
6	0.75	RD/YE	2340	Battery Positive Voltage	VI	—
7	0.75	RD/YE	2340	Battery Positive Voltage	VI	—
8	0.5	RD/WH	3440	Battery Positive Voltage	VI	—
9	0.5 0.35	RD/GY RD/GY	4140 4140	Battery Positive Voltage Battery Positive Voltage	III VI	BTM -BTM
10	0.35	BU/VT	807	OFF /Accessory Ignition Voltage	III	—
11	0.5	VT/GY	539	Run/Crank Ignition 1 Voltage	IV	—
12 - 13	—	—	—	Not Occupied	—	—
14	0.5	RD/BN	2940	Battery Positive Voltage	IV	—
15	0.5 0.5	VT/WH VT/WH	1139 1139	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	IV VI	— DD8/DRZ
16	0.5	RD/GN	5140	Battery Positive Voltage	IV	—
17	—	—	—	Not Occupied	—	—
18	0.5	RD/GY	2140	Battery Positive Voltage	IV	—
19	0.35	VT/BK	1639	Run/Crank Ignition 1 Voltage	III	—
20 - 23	—	—	—	Not Occupied	—	—
24	4	RD/VT	542	Battery Positive Voltage	II	—
25	2.5	RD/GN	3140	Battery Positive Voltage	I	—
26	—	—	—	Not Occupied	—	—
27	0.5	RD/WH	640	Battery Positive Voltage	VI	—
28	0.35	RD/GN	5140	Battery Positive Voltage	III	—
29	0.35	RD/BU	540	Battery Positive Voltage	III	—
30	0.35	RD/GY	4140	Battery Positive Voltage	III	—
31	1.5	RD/BN	4240	Battery Positive Voltage	IV	—
32	2.5	RD/VT	4040	Battery Positive Voltage	IV	—
33	—	—	—	Not Occupied	—	—
34	1	RD/BU	2540	Battery Positive Voltage	IV	—
35 - 36	—	—	—	Not Occupied	—	—
37	0.75	RD/BN	2240	Battery Positive Voltage	V	—

X51R Fuse Block - Instrument Panel Right X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
38	—	—	—	Not Occupied	—	—
39	0.35	RD/VT	3340	Battery Positive Voltage	III	—
40	0.35	RD/VT	3340	Battery Positive Voltage	III	—
41	0.35	RD/YE	3040	Battery Positive Voltage	III	—
42	0.5	RD/BU	3240	Battery Positive Voltage	VI	—
43 - 44	—	—	—	Not Occupied	—	—
45	0.5	RD/WH	2740	Battery Positive Voltage	VI	—
46	0.35	RD/GY	2840	Battery Positive Voltage	III	—
47	0.35	RD/WH	1340	Battery Positive Voltage	III	—
48	—	—	—	Not Occupied	—	—

X51R Fuse Block - Instrument Panel Right X3 (Extended Cab/Crew Cab)



4992260

Connector Part Information

Harness Type: Headliner
OEM Connector: 33297528
Service Connector: 13513732
Description: 14-Way F 150, 280 CTS Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19119592	J-35616-4A (PU)	J-38125-557	Not Available	Not Available	Not Available	Not Available
II	19332365	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	19371175	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

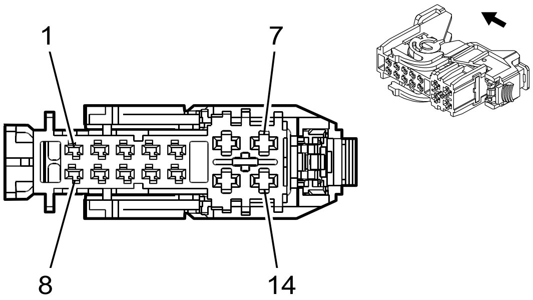
X51R Fuse Block - Instrument Panel Right X3 (Extended Cab/Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 8	—	—	—	Not Occupied	—	—
9	0.5	WH/VT	1430	Exterior Courtesy Lamp Control	III	QT5/QT6
	0.35	WH/VT	1430	Exterior Courtesy Lamp Control	III	-QT5-QT6

X51R Fuse Block - Instrument Panel Right X3 (Extended Cab/Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
10	0.35	VT/YE	43	Accessory Ignition Voltage	II	—
11	—	—	—	Not Occupied	—	—
12	0.35	RD/GN	3140	Battery Positive Voltage	II	—
13	—	—	—	Not Occupied	—	—
14	0.35	VT/WH	1139	Run/Crank Ignition 1 Voltage	I	(DD8/DRZ)-UEU

X51R Fuse Block - Instrument Panel Right X3 (Regular Cab)



5190115

Connector Part Information

Harness Type: Headliner
OEM Connector: 33377074
Service Connector: 13525315
Description: 14-Way F 1.5, 2.8 MCP Series (GY)

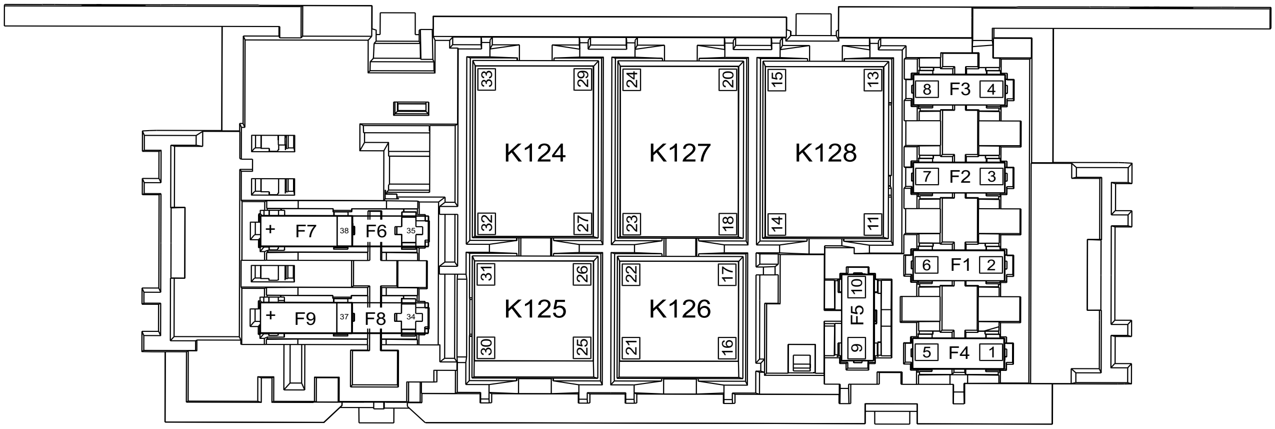
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19119592	J-35616-4A (PU)	J-38125-557	Not Available	Not Available	Not Available	Not Available
II	19371175	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

X51R Fuse Block - Instrument Panel Right X3 (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 6	—	—	—	Not Occupied	—	—
7	0.35	RD/YE	240	Battery Positive Voltage	I	—
8	—	—	—	Not Occupied	—	—
9	0.35 0.5	WH/VT WH/VT	1430 1430	Exterior Courtesy Lamp Control Exterior Courtesy Lamp Control	II II	QT5 QT6
10 - 13	—	—	—	Not Occupied	—	—
14	0.35	VT/WH	1139	Run/Crank Ignition 1 Voltage	I	—

X51B Fuse Block - Instrument Panel Auxiliary Top View


33
29
24
20
15
13
8
F3
4
K124
K127
K128
7
F2
3
+
F7
38
F6
35
32
27
23
18
14
11
31
26
22
17
6
F1
2
K125
K126
10
F5
9
+
F9
37
F8
34
30
25
21
16
5
F4
1

5245414

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	—	F1DA	30A	• W25 Blunt Cut - Configurable Provision
F2	—	F2DA	20A	• W25 Blunt Cut - Configurable Provision
F3	—	F3DA	20A	• W25 Blunt Cut - Configurable Provision
F4	—	F4DA	30A	• W25 Blunt Cut - Configurable Provision
F5	—	F5DA	30A	• W25 Blunt Cut - Configurable Provision
F6	—	F6DA	5A	• KR161A Configurable Provision Relay 1 • KR161B Configurable Provision Relay 2
F7	—	F7DA	5A	• KR161A Configurable Provision Relay 1 • KR161B Configurable Provision Relay 2
F8	—	F8DA	5A	• KR58 Roof Beacon Relay • KR161C Configurable Provision Relay 3 • KR161D Configurable Provision Relay 4
F9	—	F9DA	5A	• KR58 Roof Beacon Relay • KR161C Configurable Provision Relay 3 • KR161D Configurable Provision Relay 4
Relays				
K128	—	KR58 Roof Beacon Relay	—	• F5DA

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
K124	—	KR161A Configurable Provision Relay 1	—	• F1DA
K125	—	KR161B Configurable Provision Relay 2	—	• F2DA
K126	—	KR161C Configurable Provision Relay 3	—	• F3DA
K127	—	KR161D Configurable Provision Relay 4	—	• F4DA

X51B Fuse Block - Instrument Panel Auxiliary

—

Connector Part Information

Harness Type: Auxiliary Instrument Panel
OEM Connector: 33323307
Service Connector: Service by Harness - See Part Catalog
Description: Wire Entry Fuse Block

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-22 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X51B Fuse Block - Instrument Panel Auxiliary

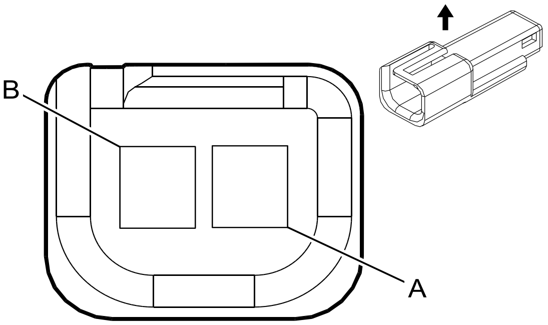
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE/BN	968	Auxiliary 4 Control	II	—
2	2.5	BU	965	Auxiliary 1 Control	II	—
3	2.5	GY/BK	966	Auxiliary 2 Control	II	—
4	2.5	BN/WH	967	Auxiliary 3 Control	II	—
5	2.5	OG/WH	968	Auxiliary 4 Control	II	—
6	2.5	BU	965	Auxiliary 1 Control	II	—
7	2.5	GY/BK	966	Auxiliary 2 Control	II	—
8	2.5	BN/WH	967	Auxiliary 3 Control	II	—
9	2.5	GN/BU	5989	Emergency Lamp Relay Contact Control	II	—
10	2.5	GN/BU	5989	Emergency Lamp Relay Contact Control	II	—
11	2.5	GN/BU	5989	Emergency Lamp Relay Contact Control	II	—
13	0.35	BU	903	Battery Positive Voltage	II	—
14	0.5	WH/BK	5990	Emergency Lamp Switch Signal	II	—
15	2.5	RD/BU	42	Battery Positive Voltage	II	—
16	2.5	RD/BU	42	Battery Positive Voltage	II	—
17	0.35	BK	963	Auxiliary 3 Switch Signal	II	—
18	2.5	OG/WH	968	Auxiliary 4 Control	II	—
20	0.35	BU	903	Battery Positive Voltage	II	—
21	0.35	BU	903	Battery Positive Voltage	II	—
22	2.5	BN/WH	967	Auxiliary 3 Control	II	—
23	0.35	BK	964	Auxiliary 4 Switch Signal	II	—
24	2.5	RD/BU	42	Battery Positive Voltage	II	—
25	2.5	RD/BU	42	Battery Positive Voltage	II	—
26	0.35	BK	962	Auxiliary 2 Switch Signal	II	—
27	2.5	BU	965	Auxiliary 1 Control	II	—
29	0.35	RD/BU	42	Battery Positive Voltage	II	—
30	0.35	RD/BU	42	Battery Positive Voltage	II	—
31	2.5	GY/BK	966	Auxiliary 2 Control	II	—
32	0.35	BK	961	Auxiliary 1 Switch Signal	II	—

X51B Fuse Block - Instrument Panel Auxiliary (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
33	2.5	RD/BU	42	Battery Positive Voltage	II	—
34	0.5	VT/GN	39	Run/Crank Ignition 1 Voltage	II	—
35	0.5	VT/GN	39	Run/Crank Ignition 1 Voltage	II	—
36	5	RD/BU	42	Battery Positive Voltage	I	—
37	0.35	BU	903	Battery Positive Voltage	II	—
38	0.35	RD/BU	42	Battery Positive Voltage	II	—
39	2.5	RD/BU	42	Battery Positive Voltage	II	—
40	2.5	RD/BU	42	Battery Positive Voltage	II	—
41	2.5	RD/BU	42	Battery Positive Voltage	II	—
42	2.5	RD/BU	42	Battery Positive Voltage	II	—
43	2.5	RD/BU	42	Battery Positive Voltage	II	—

Component Connector End Views

A3L Sunshade - Left



35441

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

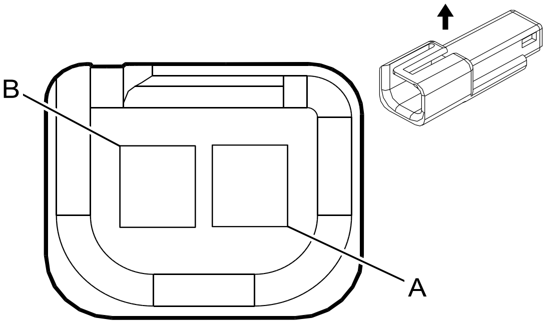
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A3L Sunshade - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH/BN	6815	Inadvertent Power Control	I	—
B	0.5	BK	1050	Ground	I	—

A3R Sunshade - Right



35441

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

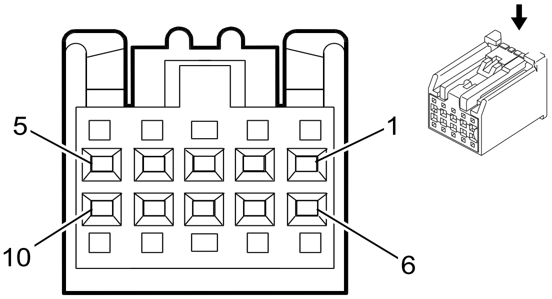
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A3R Sunshade - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	WH/BN	6815	Inadvertent Power Control	I	—
B	0.5	BK	1050	Ground	I	—

A10 Inside Rearview Mirror X1 (DD8/DRZ)



2180211

Connector Part Information

Harness Type: Headliner
OEM Connector: 13815336
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series (BK)

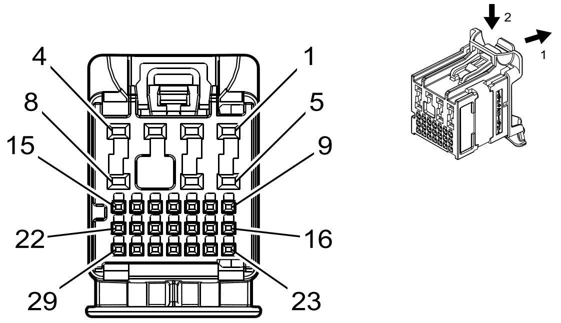
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

A10 Inside Rearview Mirror X1 (DD8/DRZ)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/WH	24	Backup Lamp Control	I	—
2	0.35	VT/WH	1139	Run/Crank Ignition 1 Voltage	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.35	BK/WH	1851	Signal Ground	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.35	BK/YE	1691	Automatic Day/Night Mirror Low Reference	I	—
9	0.35	YE/WH	1690	Automatic Day/Night Mirror Signal	I	—
10	—	—	—	Not Occupied	—	—

A11 Radio X1 (IOR)



4584346

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33303653
Service Connector: 13506123
Description: 29-Way F 0.5 NANO, 1.2 MCON Series Sealed (GN)

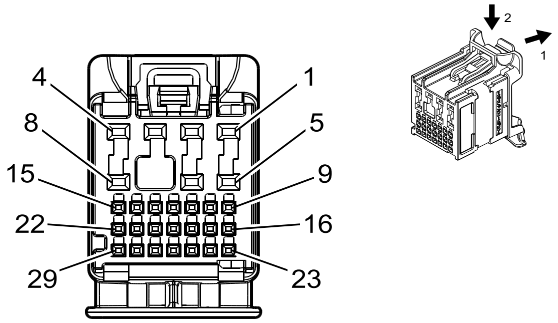
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19370262	EL-35616-58 (BK)	EL-38125-58	Not Available	Not Available	Not Available	Not Available
II	19370818	J-35616-16 (LT GN)	J-38125-559	Not Available	Not Available	Not Available	Not Available
III	19371240	J-35616-16 (LT GN)	J-38125-559	Not Available	Not Available	Not Available	Not Available

A11 Radio X1 (IOR)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/YE	2340	Battery Positive Voltage	II	—
2	0.75	RD/YE	2340	Battery Positive Voltage	II	—
3	0.75	BK/WH	2751	Signal Ground	II	—
4	0.35	BU/RD	2807	Radio Keypad Voltage Reference	III	—
5	0.35	BK/GN	2804	Radio Display Backlight Low Reference	III	—
6	0.75	BK/WH	2751	Signal Ground	II	—
7	—	—	—	Not Occupied	—	—
8	0.5	GN/BK	116	Left Rear Speaker Signal (-)	III	—
9	0.35	GY/BU	2803	Radio Display Touch Interrupt Request Signal	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	GN/WH	24	Backup Lamp Control	I	—
12	0.35	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—
13 - 14	—	—	—	Not Occupied	—	—
15	0.35	BU/GY	2808	Radio Keypad Dimming Control	I	—
16 - 20	—	—	—	Not Occupied	—	—
21	0.35	GY/VT	3363	Navigation Display Dimming Control	I	—
22	0.35	BU/GN	2813	Radio Display Backlight Dimming Control	I	—
23	0.35	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	I	—
24	0.35	BN/WH	2809	Radio Keypad Power Signal	I	—
25	0.35	VT/WH	2810	Radio Keypad Button Signal	I	—
26	0.35	BU	4315	Radio Volume Up Signal	I	—
27	0.35	GY/BN	4314	Radio Volume Down Signal	I	—
28 - 29	—	—	—	Not Occupied	—	—

A11 Radio X1 (IOS/IOT)



4496253

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33303954
Service Connector: 13506123
Description: 29-Way F 0.5 NANO, 1.2 MCON Series Sealed (BK)

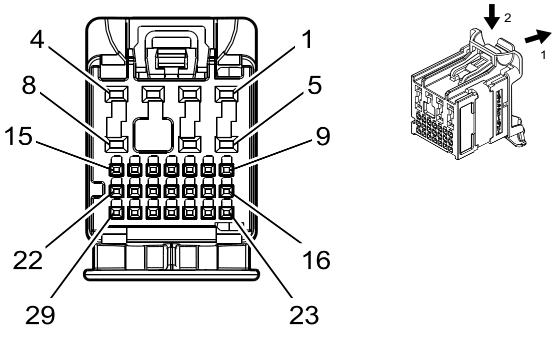
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19370262	EL-35616-58 (BK)	EL-38125-58	Not Available	Not Available	Not Available	Not Available
II	19370818	J-35616-16 (LT GN)	J-38125-559	Not Available	Not Available	Not Available	Not Available
III	19371240	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	19371240	J-35616-16 (LT GN)	J-38125-559	Not Available	Not Available	Not Available	Not Available

A11 Radio X1 (IOS/IOT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/YE	2340	Battery Positive Voltage	II	—
2	0.75	RD/YE	2340	Battery Positive Voltage	II	—
3	1	BK/WH	2751	Signal Ground	III	—
4 - 5	—	—	—	Not Occupied	—	—
6	1	BK/WH	2751	Signal Ground	III	—
7	—	—	—	Not Occupied	—	—
8	0.5	GN/BK	116	Left Rear Speaker Signal (-)	IV	—
9	0.35 0.35	GY/YE BU	5149 655	Voice Recognition Audio Signal Cellular Telephone Microphone Signal	I I	(IOS/IOT)+UE1 (IOS/IOT)-UE1
10	0.35 0.35	BK/GY BK/BN	5152 654	Voice Recognition Audio Low Reference Cellular Telephone Microphone Low Reference	I I	(IOS/IO)+UE1 (IOS/IOT)-UE1
11	0.35	VT/YE	7043	Microphone (+) Signal	I	—
12	0.35	BU/BK	7044	Microphone (-) Low Reference	I	—
13 - 29	—	—	—	Not Occupied	—	—

A11 Radio X2 (IOR)



4584398

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33303654
Service Connector: 13506123
Description: 29-Way F 0.5 NANO, 1.2 MCON Series Sealed (GY)

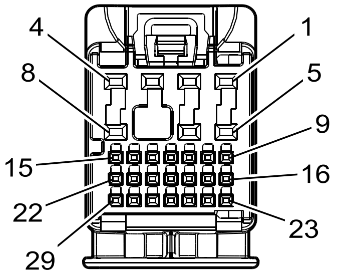
Terminal Part Information

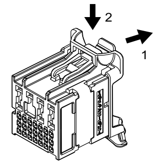
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	EL-35616-58 (BK)	EL-38125-58	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-559	Not Available	Not Available	Not Available	Not Available

A11 Radio X2 (IOR)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	199	Left Rear Speaker Control (+)	II	—
2	0.75	BU	201	Left Front Speaker Control (+) 1	II	—
3	0.75	YE	200	Right Front Speaker Control (+) 1	II	—
4	0.5	BU/BK	115	Right Rear Speaker Signal (-)	II	—
5	0.75	BN/BU	118	Left Front Speaker Signal (-) 1	II	—
6	0.75	YE/BK	117	Right Front Speaker Signal (-) 1	II	—
7	—	—	—	Not Occupied	—	—
8	0.5	WH	46	Right Rear Speaker Control (+)	II	—
9	0.35 0.35	BK/GY BK/BN	5152 654	Voice Recognition Audio Low Reference Cellular Telephone Microphone Low Reference	I I	IOR+UE1 IOR-UE1
10	0.35 0.35	GY/YE BU	5149 655	Voice Recognition Audio Signal Cellular Telephone Microphone Signal	I I	IOR+UE1 IOR-UE1
11	—	—	—	Not Occupied	—	—
12	0.35	GY/YE	6972	Camera Signal 2 +	I	—
13	0.35	WH/BU	6973	Camera Signal 2	I	—
14 - 29	—	—	—	Not Occupied	—	—

A11 Radio X2 (IOS/IOT)





4578560

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33303967
Service Connector: 84655160
Description: 29-Way F 0.5 NANO, 1.2 MCON Series Sealed (GY)

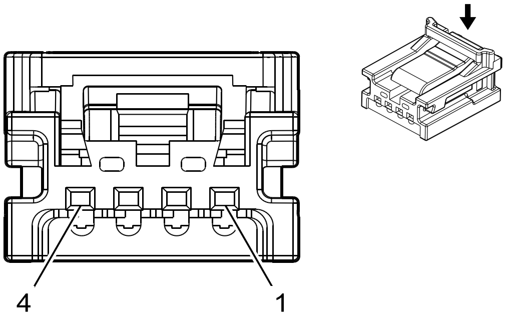
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	EL-35616-58 (BK)	EL-38125-58	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-559	Not Available	Not Available	Not Available	Not Available

A11 Radio X2 (IOS/IOT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	199	Left Rear Speaker Control (+)	II	—
2	0.75	BU	201	Left Front Speaker Control (+) 1	II	—
3	0.75	YE/BK	117	Right Front Speaker Signal (-) 1	II	—
4	0.5	BU/BK	115	Right Rear Speaker Signal (-)	II	—
5	0.75	BN/BU	118	Left Front Speaker Signal (-) 1	II	—
6	0.75	YE	200	Right Front Speaker Control (+) 1	II	—
7	—	—	—	Not Occupied	—	—
8	0.5	WH	46	Right Rear Speaker Control (+)	II	—
9	0.35	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
10	0.35	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
11	0.35	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
12	0.35	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
13	0.35	GN/WH	24	Backup Lamp Control	I	—
14 - 17	—	—	—	Not Occupied	—	—
18	0.35	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—
19 - 27	—	—	—	Not Occupied	—	—
28	0.35	WH/BU	5986	Serial Data Communication Enable	I	—
29	—	—	—	Not Occupied	—	—

A11 Radio X6 (IOR)



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33228283
Service Connector: 19354840
Description: 4-Way F Mini 50 Series (BK)

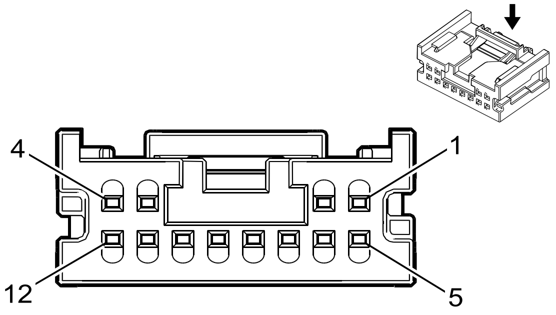
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	EL-35616-58 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A11 Radio X6 (IOR)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	GY/WH	7211	Ethernet Bus 4 (+)	I	—
3	0.35	GY	7210	Ethernet Bus 4 (-)	I	—
4	—	—	—	Not Occupied	—	—

A11 Radio X6 (IOS/IOT)



3824362

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33235297
Service Connector: 13507121
Description: 12-Way F Mini 50 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	EL-35616-58 (BK)	EL-38125-58	Not Available	Not Available	Not Available	Not Available

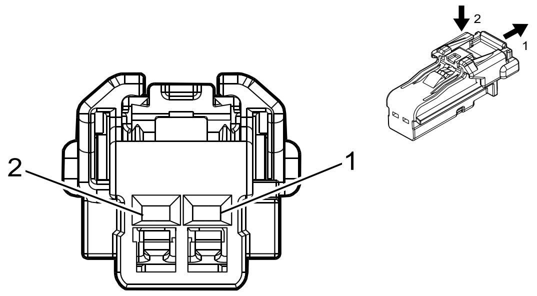
A11 Radio X6 (IOS/IOT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.35	GY/BU	7217	Ethernet Bus 7 (+)	I	—
4	0.35	BN/BU	7216	Ethernet Bus 7 (-)	I	—
5 - 7	—	—	—	Not Occupied	—	—
8	0.35	GY/BK	7215	Ethernet Bus 6 (+)	I	—
9	0.35	BN/BK	7214	Ethernet Bus 6 (-)	I	—

A11 Radio X6 (IOS/IOT) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
10	—	—	—	Not Occupied	—	—
11	0.35	GY/WH	7211	Ethernet Bus 4 (+)	I	—
12	0.35	GY	7210	Ethernet Bus 4 (-)	I	—

A14D Seat Lumbar Support Pump - Driver (A2X-A45)



4115691

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 6098-8431
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Series (BK)

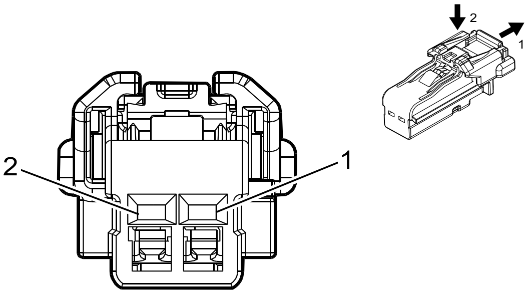
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A14D Seat Lumbar Support Pump - Driver (A2X-A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU	611	Driver Power Seat Lumbar Motor Forward Control	I	—
2	0.75	VT	610	Driver Power Seat Lumbar Motor Rearward Control	I	—

A14P Seat Lumbar Support Pump - Passenger (A7K)



4115691

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 6098-8431
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Series (BK)

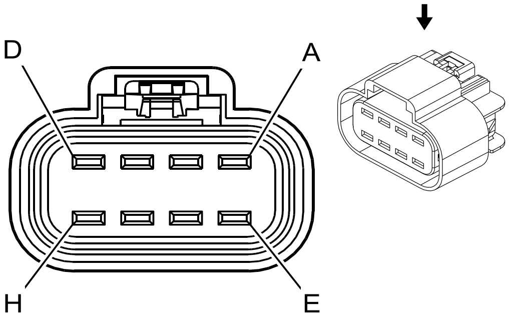
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A14P Seat Lumbar Support Pump - Passenger (A7K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU	211	Passenger Power Seat Lumbar Motor Forward Control	I	—
2	0.75	VT	210	Passenger Power Seat Lumbar Motor Rearward Control	I	—

A16 Transfer Case Motor (NP0/NQH)



646372

Connector Part Information

Harness Type: Engine
OEM Connector: 13538370

Service Connector: 19369184
Description: 8-Way F 280 GT Series, Sealed (BK)

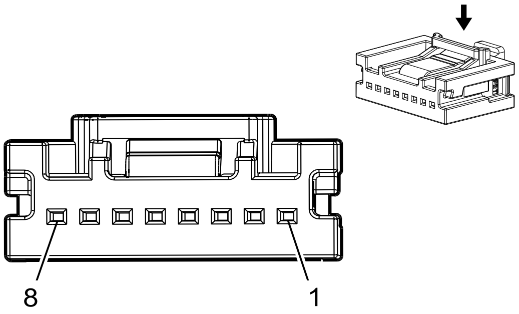
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A16 Transfer Case Motor (NP0/NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	YE/GY	1552	Transfer Case Motor Clockwise Control	I	—
B	0.75	BK	952	—	I	—
C	0.75	YE/BN	1569	Transfer Case Lock Solenoid Control	I	—
D	3	YE/VT	1553	Transfer Case Motor Counter Clockwise Control	I	—
E	0.5	YE	7474	Incremental Encoder Direction Signal	I	—
F	0.5	BU/GY	7473	Incremental Encoder Impulse Signal	I	—
G	0.5	WH/GN	7475	Incremental Encoder Sensor 8V Reference	I	—
H	0.5	VT	7476	Incremental Encoder Sensor Low Reference	I	—

A22 Radio Controls (IOR)



4017639

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33227522
Service Connector: 19354223
Description: 8-Way F Mini 50 Series (BK)

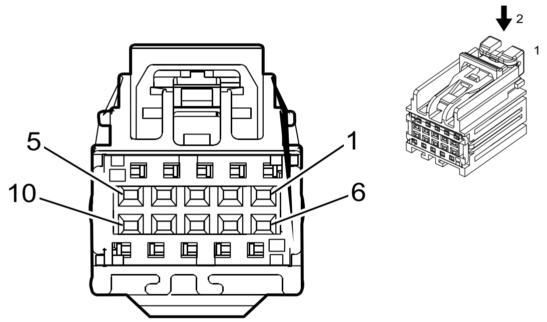
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	EL-35616-58 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A22 Radio Controls (IOR)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU/RD	2807	Radio Keypad Voltage Reference	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	BN/WH	2809	Radio Keypad Power Signal	I	—
4	0.35	BK/YE	2806	Radio Keypad Low Reference	I	—
5	0.35	BU/GY	2808	Radio Keypad Dimming Control	I	—
6	0.35	VT/WH	2810	Radio Keypad Button Signal	I	—
7	0.35	BU	4315	Radio Volume Up Signal	I	—
8	0.35	GY/BN	4314	Radio Volume Down Signal	I	—

A23D Door Latch Assembly - Driver (AU3)



4622549

Connector Part Information

Harness Type: Driver Door
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 YESC Kaizen Series (GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

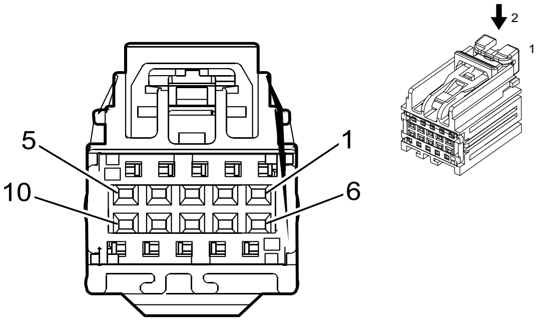
A23D Door Latch Assembly - Driver (AU3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	GY PK	745 745	Left Front Door Ajar Switch Signal Left Front Door Ajar Switch Signal	I I	A6Q AXG
2	0.5	WH/YE	3574	Driver Door Open Switch Signal	I	—
3	0.75	BK	1150	Ground	I	—
4	0.35	WH/VT	3270	Driver Door Lock Motor Status Signal	I	—
5	0.5	BU/VT	1124	Door Lock Key Switch Unlock Signal	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	GY	5911	Door Lock Actuator Lock Control 2	I	—

A23D Door Latch Assembly - Driver (AU3) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
8	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	—
9 - 10	—	—	—	Not Occupied	—	—

A23LR Door Latch Assembly - Left Rear (AU3+(Extended Cab/Crew Cab))



Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 YESC Kaizen Series (GN)

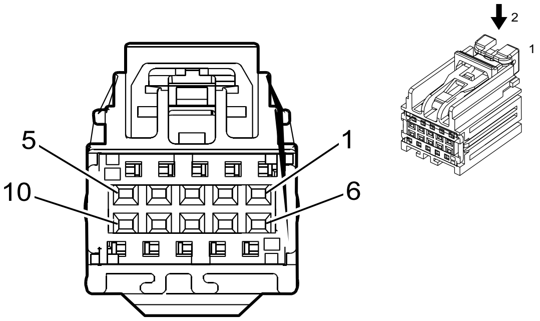
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A23LR Door Latch Assembly - Left Rear (AU3+(Extended Cab/Crew Cab))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	GY GN	747 747	Left Rear Door Ajar Switch Signal Left Rear Door Ajar Switch Signal	I I	AEQ +CREW CAB EXTENDED CAB
2	—	—	—	Not Occupied	—	—
3	0.75	BK	1150	Ground	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.75	GY	295	Door Lock Actuator Lock Control	I	—
8	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	—
9 - 10	—	—	—	Not Occupied	—	—

A23P Door Latch Assembly - Passenger (AU3)



4622549

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 YESC Kaizen Series (GN)

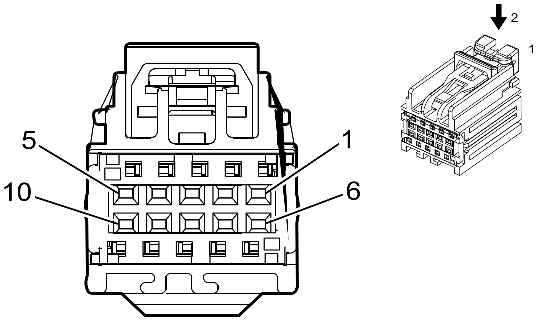
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A23P Door Latch Assembly - Passenger (AU3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.75	BK	1250	Ground	I	—
4	—	—	—	Not Occupied	—	—
5	0.5	GY	746	Right Front Door Ajar Switch Signal	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	—
9	0.75	GY	295	Door Lock Actuator Lock Control	I	—
10	—	—	—	Not Occupied	—	—

A23RR Door Latch Assembly - Right Rear (AU3+(Extended Cab/Crew Cab))



4622549

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 33320811
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 YESC Kaizen Series (GN)

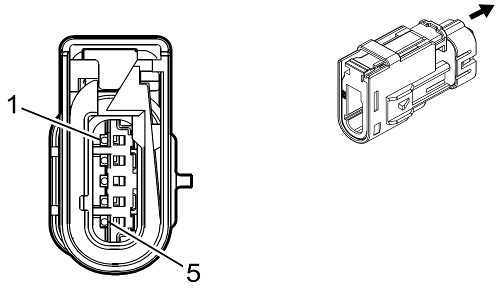
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A23RR Door Latch Assembly - Right Rear (AU3+(Extended Cab/Crew Cab))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.75	BK	1250	Ground	I	—
4	—	—	—	Not Occupied	—	—
5	0.5	GN	748	Right Rear Door Ajar Switch Signal	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	—
9	0.75	GY	295	Door Lock Actuator Lock Control	I	—
10	—	—	—	Not Occupied	—	—

A24D Door Handle Assembly - Driver Exterior (BTM)



4808321

Connector Part Information

Harness Type: Driver Door
OEM Connector: 35028909
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 1.2 Series, Sealed (NA)

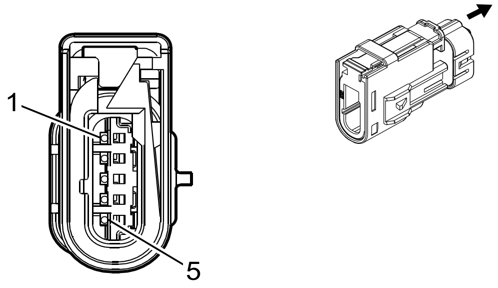
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A24D Door Handle Assembly - Driver Exterior (BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/WH	3570	Driver Door Handle Switch Signal	I	—
2	0.5	VT	3560	Passive Entry Driver Door Antenna Signal Hi	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	VT/GY	3561	Passive Entry Driver Door Antenna Signal Lo	I	—
5	0.75	BK	1150	Ground	I	—

A24LR Door Handle Assembly - Left Rear Exterior (BTM+(Extended Cab/Crew Cab))



4808325

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 35028907
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 1.2 Series, Sealed (BK)

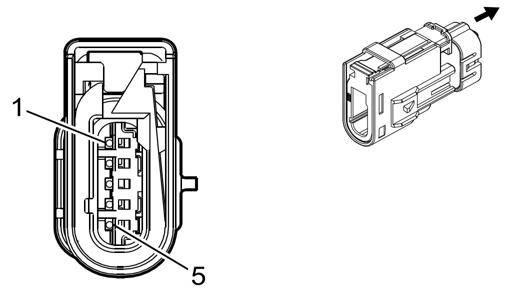
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A24LR Door Handle Assembly - Left Rear Exterior (BTM+(Extended Cab/Crew Cab))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	PK	6157	Left Rear Door Handle Switch Signal	I	—
2 - 4	—	—	—	Not Occupied	—	—
5	0.75	BK	1150	Ground	I	—

A24P Door Handle Assembly - Passenger Exterior (BTM)



4808321

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 35028909
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 1.2 Series, Sealed (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

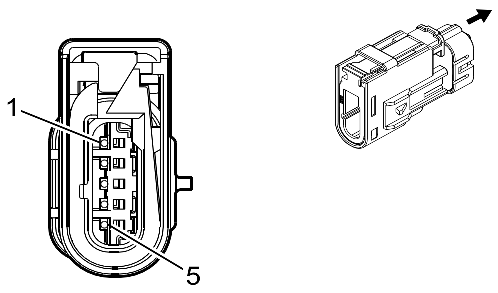
A24P Door Handle Assembly - Passenger Exterior (BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/WH	3571	Passenger Door Handle Switch Signal	I	—

A24P Door Handle Assembly - Passenger Exterior (BTM) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.5	GN/YE	3562	Passive Entry Passenger Door Antenna Signal Hi	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	GN/BK	3563	Passive Entry Passenger Door Antenna Signal Lo	I	—
5	0.75	BK	1250	Ground	I	—

A24RR Door Handle Assembly - Right Rear Exterior (BTM+(Extended Cab/Crew Cab))



4808325

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 35028907
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 1.2 Series, Sealed (BK)

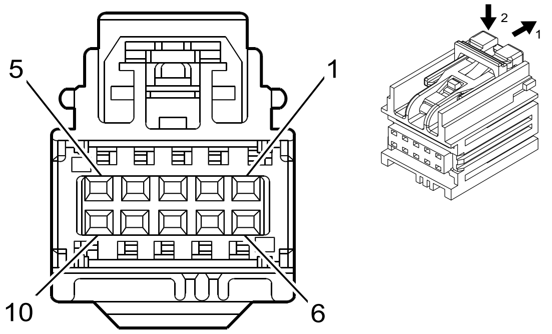
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A24RR Door Handle Assembly - Right Rear Exterior (BTM+(Extended Cab/Crew Cab))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/GY	6158	Right Rear Door Handle Switch Signal	I	—
2 - 4	—	—	—	Not Occupied	—	—
5	0.75	BK	1250	Ground	I	—

A26 HVAC Controls



4822741

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33353271
Service Connector: 13509648
Description: 10-Way F 0.64 YESC Kaizen Series (BK)

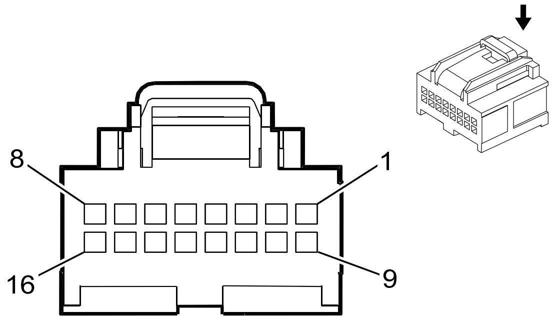
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-64B (LT BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

A26 HVAC Controls

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	1340	Battery Positive Voltage	II	—
2	—	—	—	Not Occupied	—	—
3	0.35	GN	5060	Low Speed GMLAN Serial Data	II	—
4 - 8	—	—	—	Not Occupied	—	—
9	0.35	GN/YE	7531	Local Interconnect Network Serial Data Bus 9	I	—
10	0.5	BK/WH	1851	Signal Ground	II	—

A98 Front Overhead Console Assembly X1



4223153

Connector Part Information

Harness Type: Headliner
OEM Connector: 33104225
Service Connector: 13519739
Description: 16-Way F 0.64 OCS Series (GY)

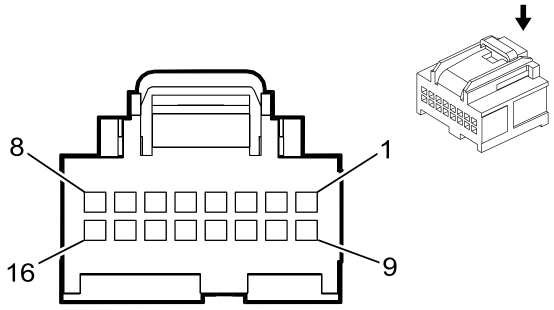
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-64B (LT BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

A98 Front Overhead Console Assembly X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	157	Interior Lamp Control	I	—
2	0.5	WH/BN	6815	Inadvertent Power Control	I	—
3	0.35	WH	6816	Indicator Dimming Control	I	—
4	0.35	YE	6817	LED Backlight Dimming Control	I	—
5	0.35	BK	1050	Ground	I	—
6	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
7	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	—
8	0.35	VT/WH	1139	Run/Crank Ignition 1 Voltage	I	—
9	0.35	VT/WH	5234	Passenger Seat Belt Indicator Control	I	—
10	0.35	GY	156	Courtesy Lamp Switch Signal	I	—
11	0.35	GY/GN	328	Interior Lamp Defeat Switch Signal	I	—
12	0.35	BK/WH	1851	Signal Ground	I	—
13	0.35	BU/GY	4672	Dome Lamp Off Indicator Control	I	—
14	0.35	VT/GN	7558	LED Ambient Lighting Control 2	I	—
15 - 16	—	—	—	Not Occupied	—	—

A98 Front Overhead Console Assembly X2



3240102

Connector Part Information

Harness Type: Headliner
OEM Connector: 33104224
Service Connector: 13519738
Description: 16-Way F 0.64 OCS Series (BK)

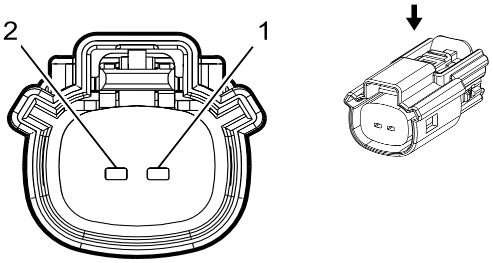
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-64B (LT BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

A98 Front Overhead Console Assembly X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/VT	2516	Keypad Green LED Control	I	—
2	0.35	BN/WH	2517	Keypad Red LED Control	I	—
3	0.35	GN/WH	2514	Keypad Signal	I	—
4	0.35	GN/BK	2515	Keypad Control	I	—
5	0.35	YE/VT	6191	Power Sliding Window Switch Open Signal	I	—
6	0.35	WH	6192	Power Sliding Window Switch Close Signal	I	—
7	0.35	VT/YE	43	Accessory Ignition Voltage	I	—
8	0.35	RD/YE	240	Battery Positive Voltage	I	—
9	0.35	BU/VT	5027	Sunroof Switch Data 1 Signal	I	—
10	0.35	WH/GN	3031	Sunroof Vent Switch Signal	I	—
11	0.35	BK/GY	128	Sunroof Switch Low Reference	I	—
12 - 16	—	—	—	Not Occupied	—	—

A99L Pickup Box Endgate Latch - Left (QK2)



2474713

Connector Part Information

Harness Type: Endgate
OEM Connector: 13782480
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series, Sealed (BK)

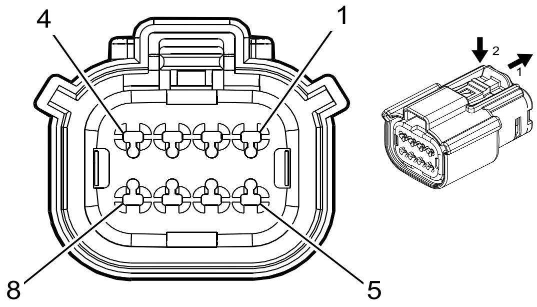
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A99L Pickup Box Endgate Latch - Left (QK2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	1299	Major Endgate Motor Supply Voltage	I	—
2	0.5	YE/BK	7730	Major Endgate Motor Return	I	—

A99L Pickup Box Endgate Latch - Left (QT6)



4846407

Connector Part Information

Harness Type: Endgate
OEM Connector: 35037827
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 MX Series, Sealed (BK)

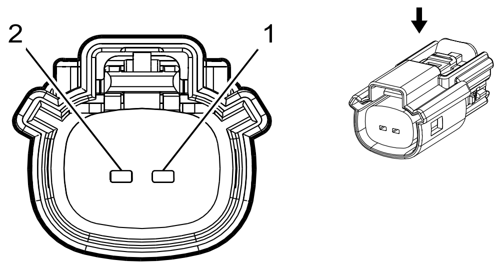
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A99L Pickup Box Endgate Latch - Left (QT6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	GY/VT	4678	Rear Closure Ajar Switch Signal 1	I	—
3	0.35	BU/BK	4665	Rear Closure Ajar Switch Signal 2	I	—
4	0.5	BK/VT	4656	Rear Closure Object Sensor Low Reference	I	—
5	1	BN	4681	Rear Closure Cinch Latch Motor Open Control	I	—
6	1	BU/GY	4682	Rear Closure Cinch Latch Motor Close Control	I	—
7	0.35	GN/BK	4659	Rear Closure Open	I	—
8	0.5	PK/BK	4668	Rear Closure Ajar Switch Signal 3	I	—

A99R Pickup Box Endgate Latch - Right (QK2)



2474713

Connector Part Information

Harness Type: Endgate
OEM Connector: 13782480
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series, Sealed (BK)

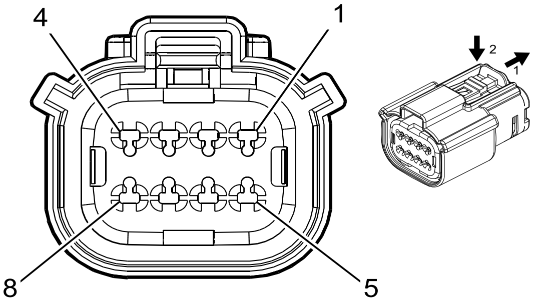
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A99R Pickup Box Endgate Latch - Right (QK2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	1299	Major Endgate Motor Supply Voltage	I	—
2	0.5	YE/BK	7730	Major Endgate Motor Return	I	—

A99R Pickup Box Endgate Latch - Right (QT6)



4846407

Connector Part Information

Harness Type: Endgate
OEM Connector: 35037827
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 MX Series, Sealed (BK)

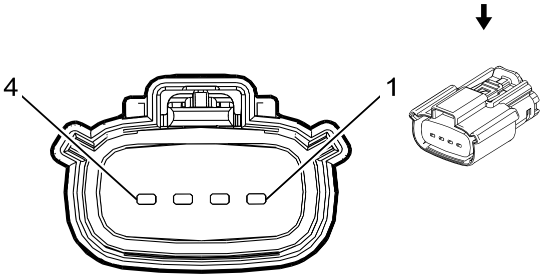
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A99R Pickup Box Endgate Latch - Right (QT6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BK	1575	Rear Closure Sensor Low Reference 2	I	—
2	0.35	YE/RD	7734	Rear Closure Latch 2 Rachet Status	I	—
3	0.5	VT	7736	Rear Closure Latch 2 Unlatch Status	I	—
4	—	—	—	Not Occupied	—	—
5	0.5	WH	7735	Rear Closure Latch 2 Pawl Status	I	—
6	0.35	OG	7733	Rear Closure Latch 2 Sector Status	I	—
7	1	PK	1499	Rear Closure Cinch Latch Motor 2 Cinch Control	I	—
8	1	BU	1509	Rear Closure Cinch Latch Motor 2 Release Control	I	—

A100L Pickup Box Auxiliary Endgate Latch - Left (QK2/QT5)



2474747

Connector Part Information

Harness Type: Endgate
OEM Connector: 13815807
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 MX Series, Sealed (BK)

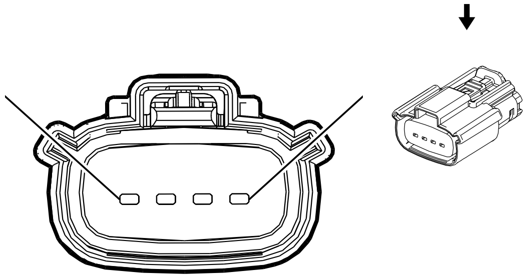
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A100L Pickup Box Auxiliary Endgate Latch - Left (QK2/QT5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BU	7295	Left Minor Endgate Ajar Signal	I	—
2	0.75	BK	1450	Ground	I	—
3	0.5	BN/BK	7726	Minor Endgate Motor Return	I	—
4	0.5	VT	7725	Minor Endgate Motor Supply Voltage	I	—

A100R Pickup Box Auxiliary Endgate Latch - Right (QK2/QT5)



2474747

Connector Part Information

Harness Type: Endgate

OEM Connector: 13815807

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 150 MX Series, Sealed (BK)

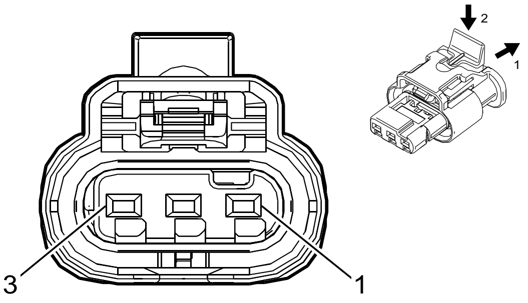
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A100R Pickup Box Auxiliary Endgate Latch - Right (QK2/QT5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/BK	7726	Minor Endgate Motor Return	I	—
2	0.5	VT	7725	Minor Endgate Motor Supply Voltage	I	—
3	0.35	WH/BN	7296	Right Minor Endgate Ajar Signal	I	—
4	0.75	BK	1450	Ground	I	—

B1 A/C Refrigerant Pressure Sensor



4249125

Connector Part Information

Harness Type: Engine

OEM Connector: 33176362

Service Connector: 19366844

Description: 3-Way F 1.2 MCP Series, Sealed (BN)

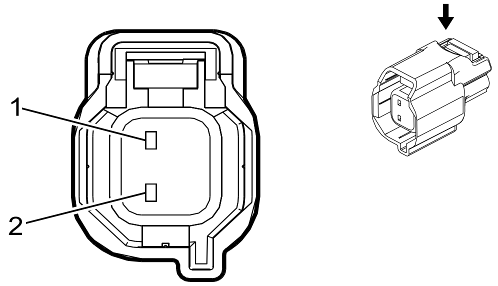
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B1 A/C Refrigerant Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
2	0.5	GN	380	A/C Refrigerant Pressure Sensor Signal	I	—
3	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	I	—

B5LF Wheel Speed Sensor - Left Front



2900396

Connector Part Information

Harness Type: Chassis
OEM Connector: 15503634
Service Connector: 19366856
Description: 2-Way F 1.5 Series (L-GY)

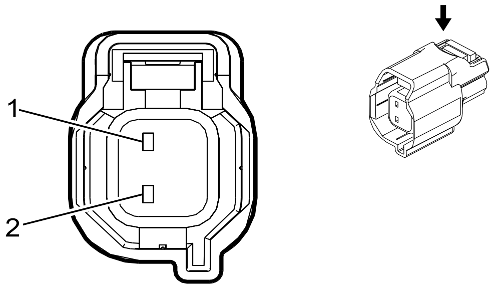
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5LF Wheel Speed Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	7064	Wheel Speed Sensor Control Left Front	I	—
2	0.5	GY	830	Wheel Speed Sensor Signal Left Front	I	—

B5LR Wheel Speed Sensor - Left Rear



2900396

Connector Part Information

Harness Type: Chassis
OEM Connector: 15503634
Service Connector: 19366856
Description: 2-Way F 1.5 Series (L-GY)

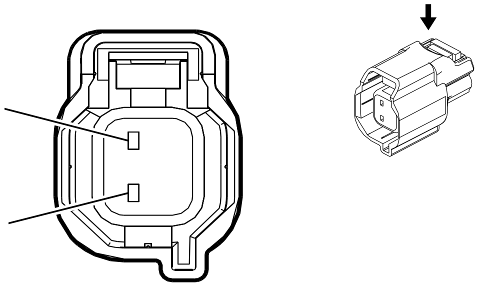
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5LR Wheel Speed Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BK	7127	Wheel Speed Sensor Control Left Rear	I	—
2	0.5	BU	884	Wheel Speed Sensor Signal Left Rear	I	—

B5RF Wheel Speed Sensor - Right Front



2900396

Connector Part Information

Harness Type: Chassis
OEM Connector: 15503634
Service Connector: 19366856
Description: 2-Way F 1.5 Series (L-GY)

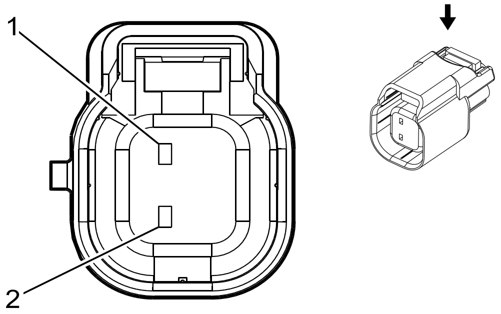
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5RF Wheel Speed Sensor - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	7065	Wheel Speed Sensor Control Right Front	I	—
2	0.5	YE	872	Wheel Speed Sensor Signal Right Front	I	—

B5RR Wheel Speed Sensor - Right Rear



4115616

Connector Part Information

Harness Type: Chassis
OEM Connector: 33122852
Service Connector: 19366860
Description: 2-Way F 1.5 Series, Sealed (BK)

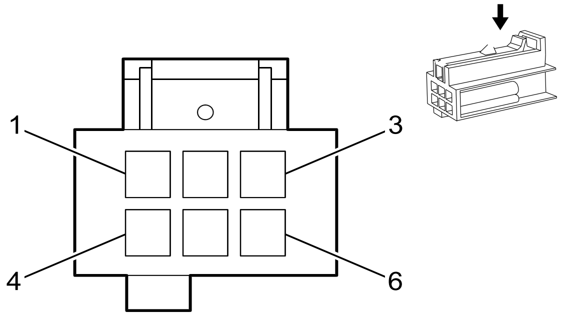
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5RR Wheel Speed Sensor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/YE	7128	Wheel Speed Sensor Control Right Rear	I	—
2	0.5	VT	882	Wheel Speed Sensor Signal Right Rear	I	—

B10B Ambient Light/Sunload Sensor



2282896

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15338980
Service Connector: 19333315
Description: 6-Way F 0.64 Micro-Quadlock Series (BK)

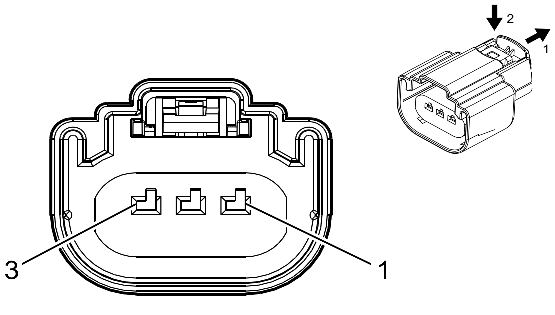
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B10B Ambient Light/Sunload Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	590	Solar Sensor Driver Signal	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	WH/BU	278	Ambient Light Sensor Signal	I	—
4	0.35	BU/WH	734	Inside Air Temperature Sensor Signal	I	—
5	0.35	GY	728	Security Indicator Control	I	—
6	0.35	BK/GN	7567	Solar Sensor Low Reference	I	—

B18 Battery Current Sensor (-KL9)



4569745

Connector Part Information

Harness Type: Body
OEM Connector: 33343869
Service Connector: 19179750
Description: 3-Way F 150 MX Series, Sealed (BK)

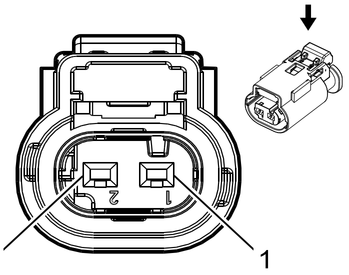
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B18 Battery Current Sensor (-KL9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU/VT	5076	Current Sensor Control	I	—
2	0.35	BK/VT	5077	Current Sensor Low Reference	I	—
3	0.35	WH/YE	5075	Current Sensor Signal	I	—

B20 Brake Fluid Level Switch



2717066

Connector Part Information

Harness Type: Body
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

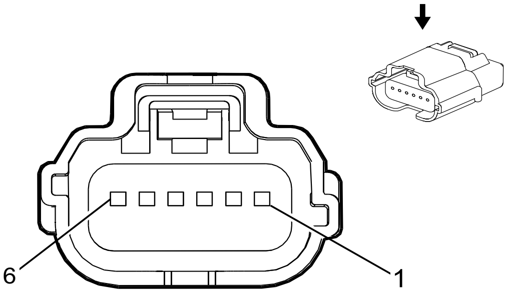
B20 Brake Fluid Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/GY	333	Brake Fluid Level Sensor Signal	I	—

B20 Brake Fluid Level Switch (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.5 0.75 0.5	BK BK BK	150 150 150	Ground Ground Ground	I I I	— — J61

B22 Brake Pedal Position Sensor (Crew Cab)



3270302

Connector Part Information

Harness Type: Body
OEM Connector: 13893502
Service Connector: 84683650
Description: 6-Way F 64 Series, Sealed (NA)

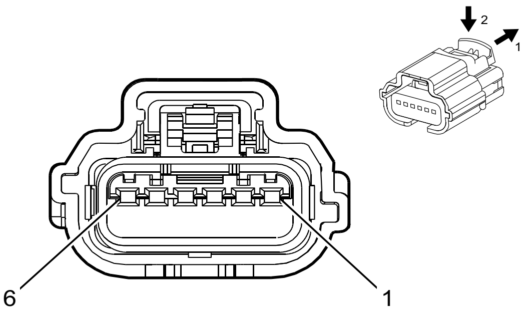
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B22 Brake Pedal Position Sensor (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/BN	5360	Brake Apply Sensor Low Reference	I	—
2	0.35	WH	5359	Brake Apply Sensor Control	I	—
3	0.35	BU/YE	5361	Brake Apply Sensor Signal	I	—
4	0.35	WH/GN	5380	Brake Position Sensor Signal	I	—
5	0.35	BK/YE	5382	Brake Position Sensor Low Reference	I	—
6	0.35	WH/RD	5381	Brake Position Sensor 5V Reference	I	—

B22 Brake Pedal Position Sensor (Extended Cab)



4773396

Connector Part Information

Harness Type: Body
OEM Connector: 35199160
Service Connector: 84683650
Description: 6-Way F 64 Series, Sealed (NA)

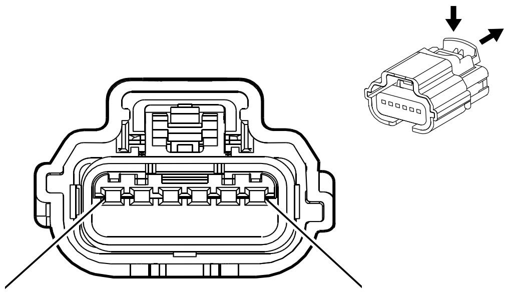
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B22 Brake Pedal Position Sensor (Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/BN	5360	Brake Apply Sensor Low Reference	I	—
2	0.35	WH	5359	Brake Apply Sensor Control	I	—
3	0.35	BU/YE	5361	Brake Apply Sensor Signal	I	—
4	0.35	WH/GN	5380	Brake Position Sensor Signal	I	—
5	0.35	BK/YE	5382	Brake Position Sensor Low Reference	I	—
6	0.35	WH/RD	5381	Brake Position Sensor 5V Reference	I	—

B22 Brake Pedal Position Sensor (Regular Cab)



4773396

Connector Part Information

Harness Type: Body
OEM Connector: 35199160
Service Connector: 84683650
Description: 6-Way F 64 Series, Sealed (NA)

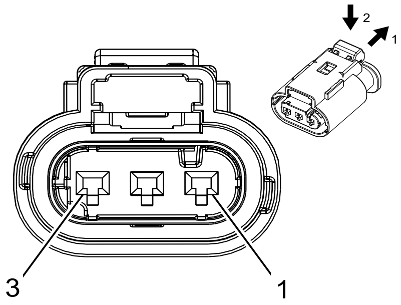
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B22 Brake Pedal Position Sensor (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/BN	5360	Brake Apply Sensor Low Reference	I	—
2	0.35	WH	5359	Brake Apply Sensor Control	I	—
3	0.35	BU/YE	5361	Brake Apply Sensor Signal	I	—
4	0.35	WH/GN	5380	Brake Position Sensor Signal	I	—
5	0.35	BK/YE	5382	Brake Position Sensor Low Reference	I	—
6	0.35	WH/RD	5381	Brake Position Sensor 5V Reference	I	—

B23 Camshaft Position Sensor (L82/L84/LV3)



2717069

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: 13763990
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

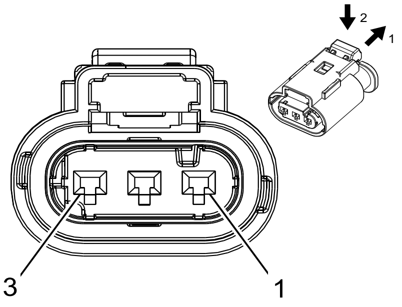
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B23 Camshaft Position Sensor (L82/L84/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	I	—
2	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	—
3	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	—

B23 Camshaft Position Sensor (L87)



2717069

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: 13763990
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

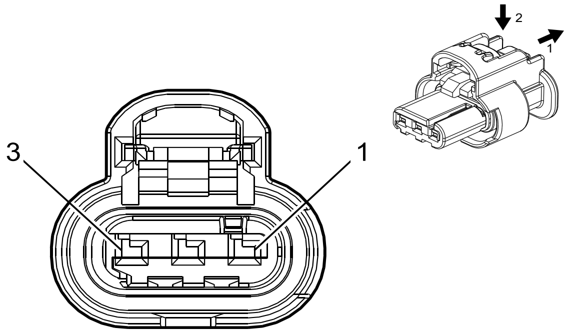
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B23 Camshaft Position Sensor (L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	I	—
2	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	—
3	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	—

B23 Camshaft Position Sensor (LM2)



4581126

Connector Part Information

Harness Type: Engine
OEM Connector: 33358800
Service Connector: 19366844
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

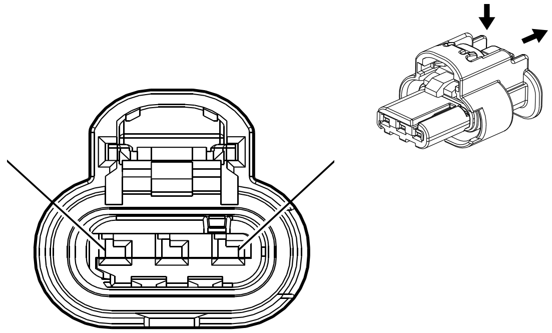
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B23 Camshaft Position Sensor (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/YE	5297	Camshaft Position Exhaust Sensor Control 1	I	—
2	0.5	BK/GY	5296	Camshaft Position Exhaust Sensor Low Reference 1	I	—
3	0.5	VT/BK	5273	Camshaft Position Exhaust Sensor 1	I	—

B23E Camshaft Position Sensor - Exhaust (L3B)



4581126

Connector Part Information

Harness Type: Engine
OEM Connector: 33358800

Service Connector: 19366844
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

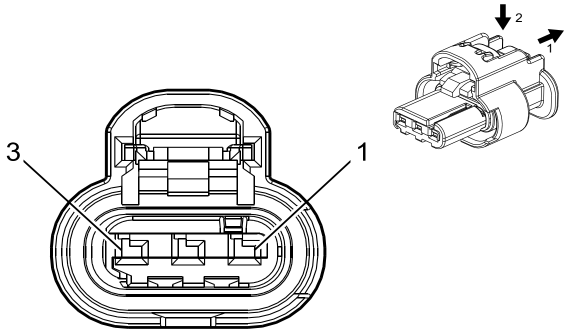
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B23E Camshaft Position Sensor - Exhaust (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/YE	5297	Camshaft Position Exhaust Sensor Control 1	I	—
2	0.5	BK/GY	5296	Camshaft Position Exhaust Sensor Low Reference 1	I	—
3	0.5	VT/BK	5273	Camshaft Position Exhaust Sensor 1	I	—

B23F Camshaft Position Sensor - Intake (L3B)



4581126

Connector Part Information

Harness Type: Engine
OEM Connector: 33358800
Service Connector: 19366844
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

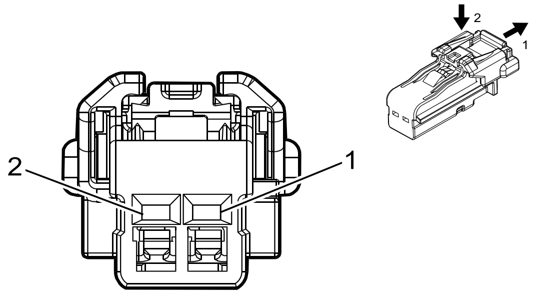
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B23F Camshaft Position Sensor - Intake (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	I	—
2	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	—
3	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	—

B24LF Mobile Telephone Microphone - Left Front (UE1)



4115691

Connector Part Information

Harness Type: Headliner
OEM Connector: 33189235
Service Connector: 19352066
Description: 2-Way F 1.2 Series (BK)

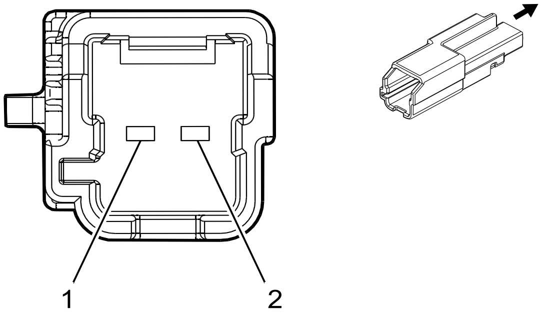
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B24LF Mobile Telephone Microphone - Left Front (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/BN	654	Cellular Telephone Microphone Low Reference	I	—
2	0.35	BU	655	Cellular Telephone Microphone Signal	I	—

B24RF Mobile Telephone Microphone - Right Front (IOS/IOT)



4116495

Connector Part Information

Harness Type: Headliner
OEM Connector: 33251047

Service Connector: 19332377
Description: 2-Way M 1.2 Series (GY)

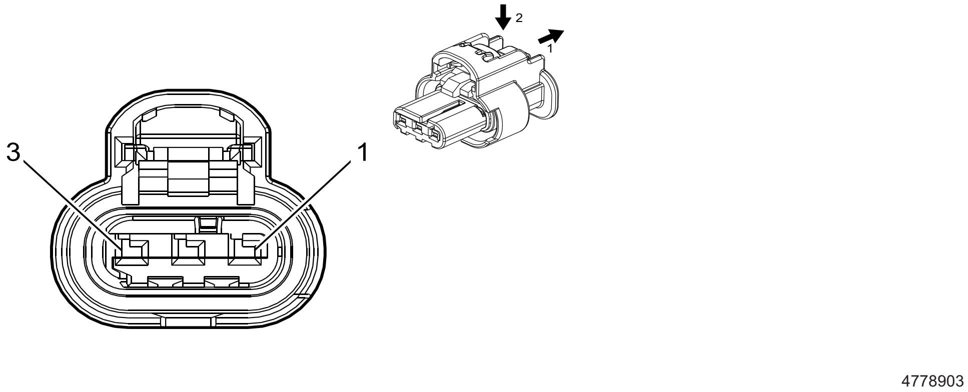
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B24RF Mobile Telephone Microphone - Right Front (IOS/IOT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU/BK	7044	Microphone (-) Low Reference	I	—
2	0.35	VT/YE	7043	Microphone (+) Signal	I	—

B26 Crankshaft Position Sensor (L3B)



Connector Part Information

Harness Type: Engine
OEM Connector: 33358808
Service Connector: 19369810
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

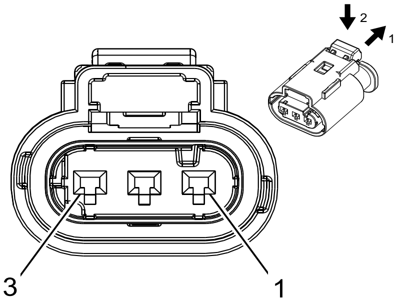
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B26 Crankshaft Position Sensor (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	—
2	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
3	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	—

B26 Crankshaft Position Sensor (L82)



Connector Part Information

Harness Type: Engine
OEM Connector: 13763990
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

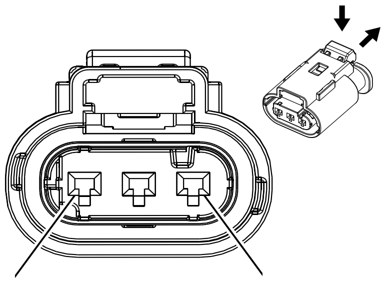
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B26 Crankshaft Position Sensor (L82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	L82
	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	LV3
2	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	L82
	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	LV3
3	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	L82
	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	LV3

B26 Crankshaft Position Sensor (L84/L87)



Connector Part Information

Harness Type: Engine
OEM Connector: 13763990
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

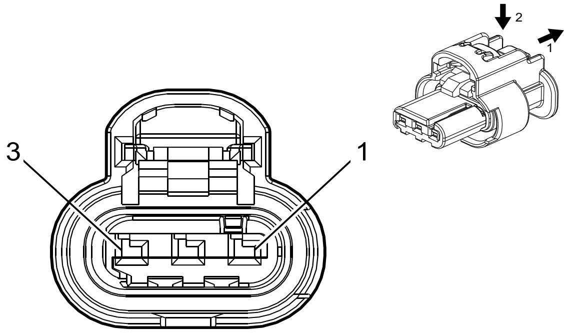
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B26 Crankshaft Position Sensor (L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	—
2	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
3	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	—

B26 Crankshaft Position Sensor (LM2)



4581126

Connector Part Information

Harness Type: Engine
OEM Connector: 33358800
Service Connector: 19366844
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

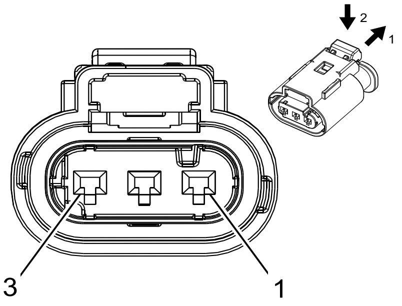
B26 Crankshaft Position Sensor (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	—

B26 Crankshaft Position Sensor (LM2) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
3	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	—

B26 Crankshaft Position Sensor (LV3)



2717069

Connector Part Information

Harness Type: Engine
OEM Connector: 13763990
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

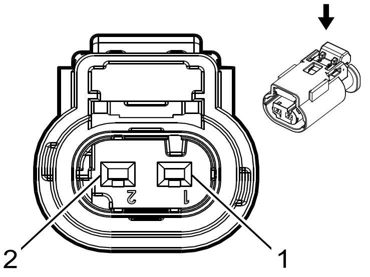
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B26 Crankshaft Position Sensor (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	—
2	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
3	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	—

B34 Engine Coolant Temperature Sensor (LV3)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

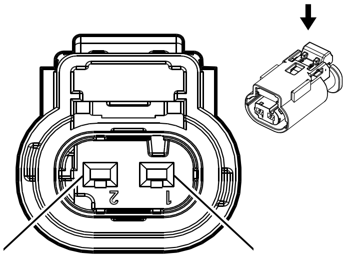
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34 Engine Coolant Temperature Sensor (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
2	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	—

B34A Engine Coolant Temperature Sensor 1 (L3B)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

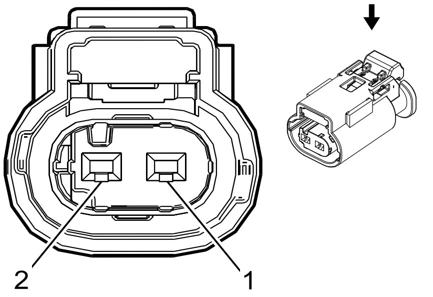
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34A Engine Coolant Temperature Sensor 1 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BU	2408	Engine Inlet Coolant Temperature Signal	I	—
2	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—

B34A Engine Coolant Temperature Sensor 1 (LM2)



2830969

Connector Part Information

Harness Type: Engine
OEM Connector: 13840071
Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed (D-GY)

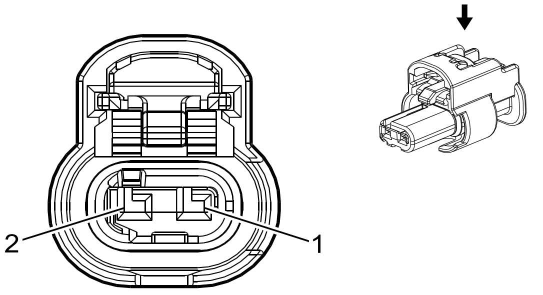
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34A Engine Coolant Temperature Sensor 1 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BU	2408	Engine Inlet Coolant Temperature Signal	I	—
2	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—

B34B Engine Coolant Temperature Sensor 2 (L3B)



4690744

Connector Part Information

Harness Type: Engine
OEM Connector: 33375932
Service Connector: 19366871
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

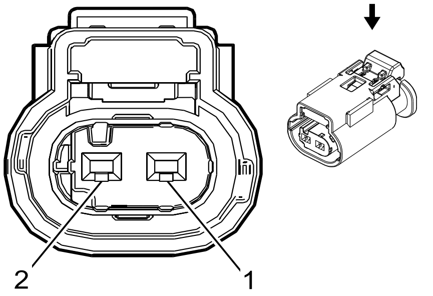
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34B Engine Coolant Temperature Sensor 2 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	2988	Engine Outlet Coolant Temperature Signal	I	—
2	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	I	—

B34B Engine Coolant Temperature Sensor 2 (LM2)



2830969

Connector Part Information

Harness Type: Coolant Temperature Jumper
OEM Connector: 10010339
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed (D-GY)

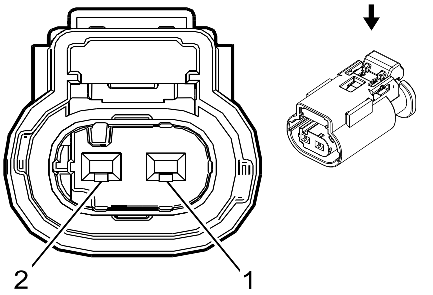
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34B Engine Coolant Temperature Sensor 2 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	2988	Engine Outlet Coolant Temperature Signal	I	—
2	0.5	BK/GN	581	Throttle Actuator Control Open	I	—

B34C Engine Coolant Temperature Sensor 3 (L3B)



2830969

Connector Part Information

Harness Type: Engine
OEM Connector: 13840071
Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed (D-GY)

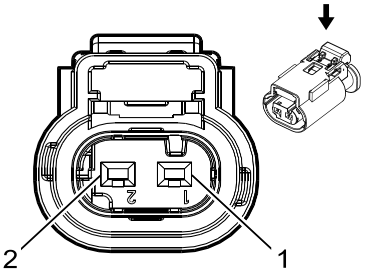
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34C Engine Coolant Temperature Sensor 3 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/GY	4644	Heater Core Inlet Temperature Signal	I	—
2	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	I	—

B34C Engine Coolant Temperature Sensor 3 (LM2)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

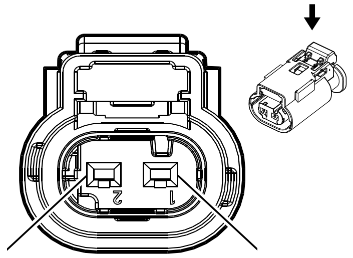
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34C Engine Coolant Temperature Sensor 3 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/GY	4644	Heater Core Inlet Temperature Signal	I	—
2	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—

B34D Engine Coolant Temperature Sensor 4 (L3B)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

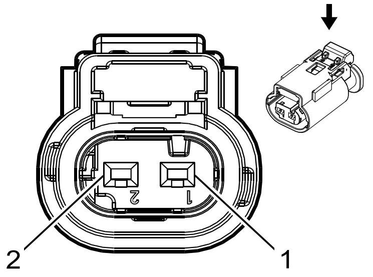
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34D Engine Coolant Temperature Sensor 4 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	4645	Heater Core Outlet Temperature Signal	I	L3B
2	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	I	LM2

B34D Engine Coolant Temperature Sensor 4 (LM2)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

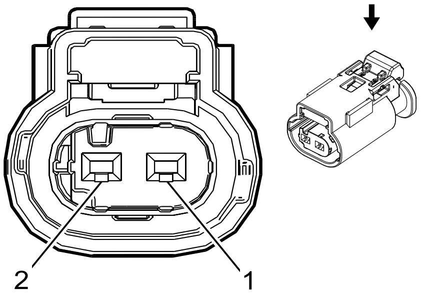
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34D Engine Coolant Temperature Sensor 4 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	4645	Heater Core Outlet Temperature Signal	I	LM2
2	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	L3B

B34E Engine Coolant Temperature Sensor 5 (L3B)



2830969

Connector Part Information

Harness Type: Engine
OEM Connector: 13840071
Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed (D-GY)

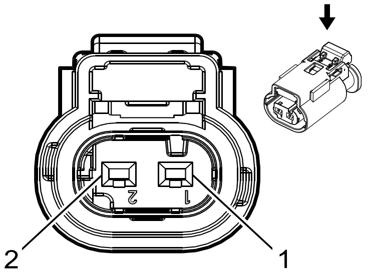
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34E Engine Coolant Temperature Sensor 5 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	906	—	I	—
2	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—

B34E Engine Coolant Temperature Sensor 5 (LM2)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

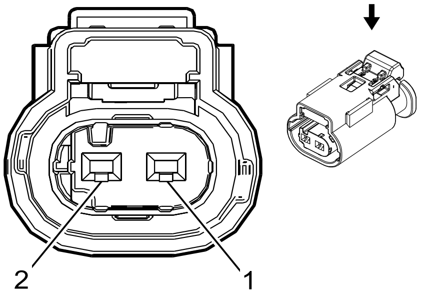
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34E Engine Coolant Temperature Sensor 5 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
2	0.5	BU/BK	1422	Engine Water Charge Air Coolant Temperature Signal	I	—

B34F Engine Coolant Temperature Sensor 6 (L3B)



2830969

Connector Part Information

Harness Type: Engine
OEM Connector: 13840071
Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed (D-GY)

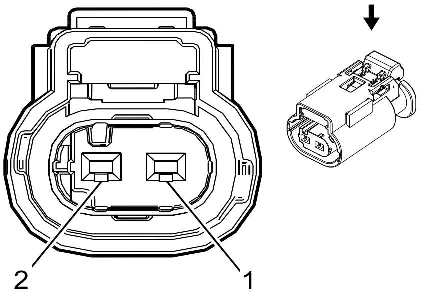
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34F Engine Coolant Temperature Sensor 6 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/VT	2404	Engine Block Coolant Temperature Signal	I	—
2	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—

B34F Engine Coolant Temperature Sensor 6 (LM2)



2830969

Connector Part Information

Harness Type: Coolant Temperature Jumper
OEM Connector: 10010339
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed (D-GY)

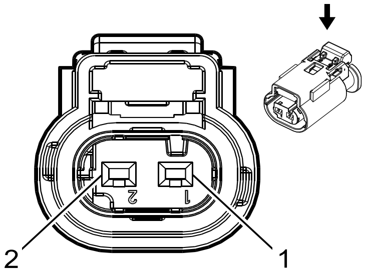
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34F Engine Coolant Temperature Sensor 6 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	907	—	I	—
	0.5	GY/VT	2404	Engine Block Coolant Temperature Signal	I	LM2
2	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—
	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	LM2

B35 Engine Oil Level Switch (L3B/L82/L84/L87/LV3)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326

Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

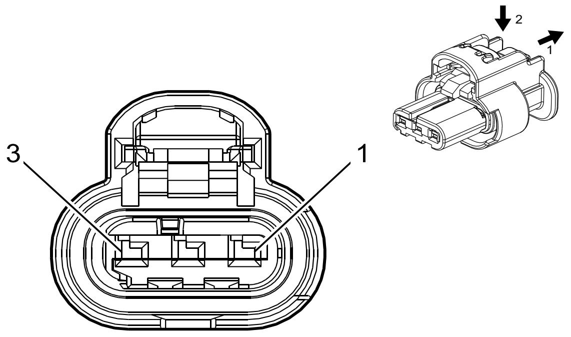
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B35 Engine Oil Level Switch (L3B/L82/L84/L87/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/WH	451	Signal Ground	I	L82/L84/L87
	1	BK/WH	451	Signal Ground	I	LV3
2	0.5	BN/GN	1174	Oil Level Switch Signal	I	L82/L84/L87
	0.5	BN/GN	1174	Oil Level Switch Signal	I	LV3

B36 Engine Oil Temperature Sensor (L3B/LM2)



Connector Part Information

Harness Type: Engine
OEM Connector: 33358809
Service Connector: 19371199
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

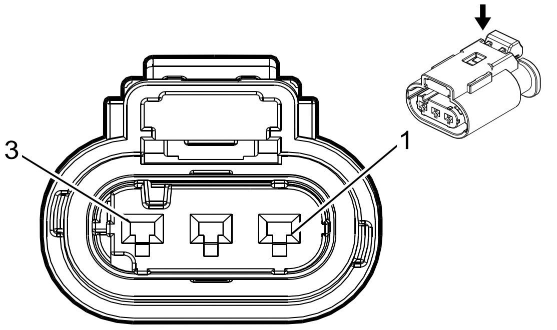
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B36 Engine Oil Temperature Sensor (L3B/LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	I	—
2	0.5	BN/BU	357	Oil Temperature Sensor Signal	I	—
3	0.5	VT	7485	Oil Temperature Sensor Signal	I	—

B37B Engine Oil Pressure Sensor (L3B)



3240107

Connector Part Information

Harness Type: Engine
OEM Connector: 13889776
Service Connector: 19301717
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

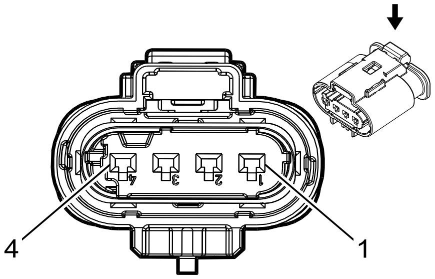
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B37B Engine Oil Pressure Sensor (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
2	0.75	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
3	0.75	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—

B37B Engine Oil Pressure Sensor (L82/L84/L87)



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13815341
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

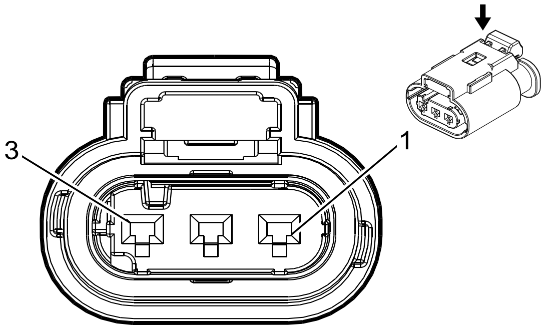
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B37B Engine Oil Pressure Sensor (L82/L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
2	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
3	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—
4	0.5	BN/BU	357	Oil Temperature Sensor Signal	I	—

B37B Engine Oil Pressure Sensor (LM2)



3240107

Connector Part Information

Harness Type: Engine
OEM Connector: 13889776
Service Connector: 19301717
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

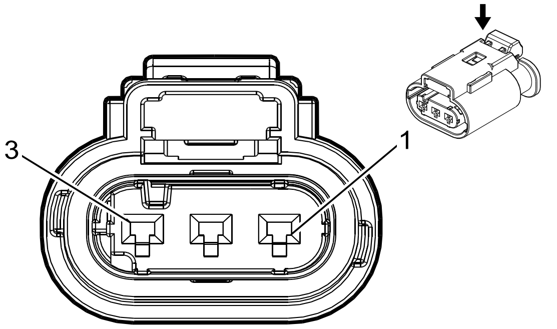
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B37B Engine Oil Pressure Sensor (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
3	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—

B37B Engine Oil Pressure Sensor (LV3)



3240107

Connector Part Information

Harness Type: Engine
OEM Connector: 13889776
Service Connector: 19301717
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

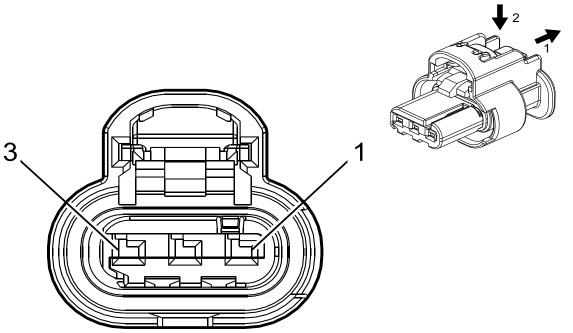
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B37B Engine Oil Pressure Sensor (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
3	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—

B47 Fuel Pressure Sensor



4581126

Connector Part Information

Harness Type: Chassis
OEM Connector: 33358800
Service Connector: 19366844
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

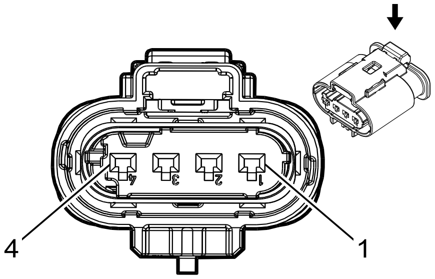
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B47 Fuel Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	I	—
2	0.5	BK/YE	7447	Fuel Line Pressure Sensor Low Reference	I	—
3	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	I	—

B47B Fuel Rail Pressure Sensor (LM2)



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13815341

Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

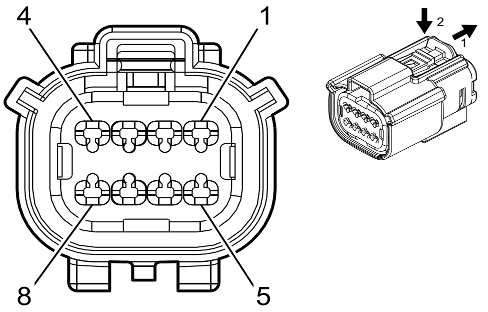
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B47B Fuel Rail Pressure Sensor (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
2	0.5	BN/YE	2161	Fuel Rail Pressure Sensor 2 Signal	I	—
3	0.5	BK/GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
4	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—

B52A Heated Oxygen Sensor 1 (L3B)



4846403

Connector Part Information

Harness Type: Engine
OEM Connector: 35037828
Service Connector: 19369368
Description: 8-Way F 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

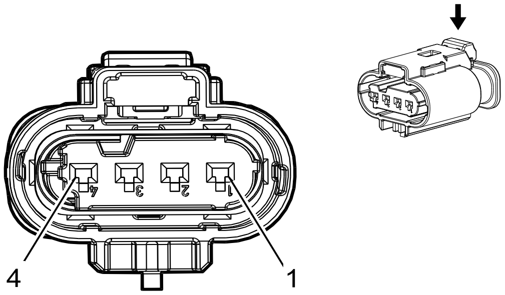
B52A Heated Oxygen Sensor 1 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	6934	Heated Oxygen Sensor Ground	I	—
2	0.75	YE/GY	6936	Heated Oxygen Sensor Collector Signal	I	—
3	0.75	BN/WH	6933	Heated Oxygen Sensor Current Pump Signal	I	—

B52A Heated Oxygen Sensor 1 (L3B) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
4	—	—	—	Not Occupied	—	—
5	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
6	0.75	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	—
7	0.75	GN	6935	Heated Oxygen Sensor Current Adjust Signal	I	—
8	—	—	—	Not Occupied	—	—

B52B Heated Oxygen Sensor 2 (L3B)



4036496

Connector Part Information

Harness Type: Engine
OEM Connector: 15532689
Service Connector: 19330904
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

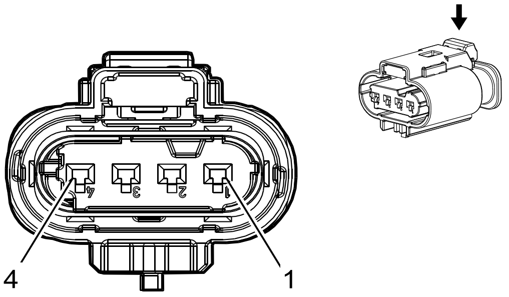
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52B Heated Oxygen Sensor 2 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I	—
2	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	—
3	0.75	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I	—
4	0.75	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I	—

B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (L82/L84/L87)



4381050

Connector Part Information

Harness Type: Engine
OEM Connector: 33253021
Service Connector: 19354075
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

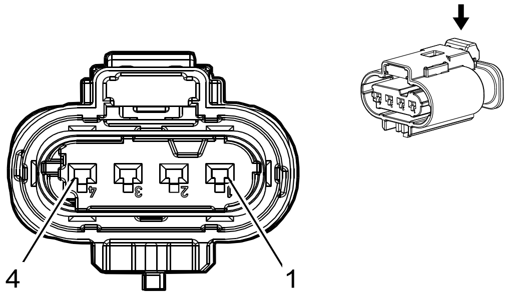
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (L82/L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	GY/WH GY/WH	3113 3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1 Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I I	L82/L84/L87 LV3
2	0.75 0.75	VT/BU VT/BU	5293 5293	Powertrain Main Relay Fused Supply 4 Powertrain Main Relay Fused Supply 4	I I	L82/L84/L87 LV3
3	0.5 0.5	WH/BK WH/BK	3111 3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1 Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I I	L82/L84/L87 LV3
4	0.5 0.5	VT/GY VT/GY	3110 3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1 Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I I	L82/L84/L87 LV3

B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (LV3)



4381050

Connector Part Information

Harness Type: Engine
OEM Connector: 33253021
Service Connector: 19354075
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

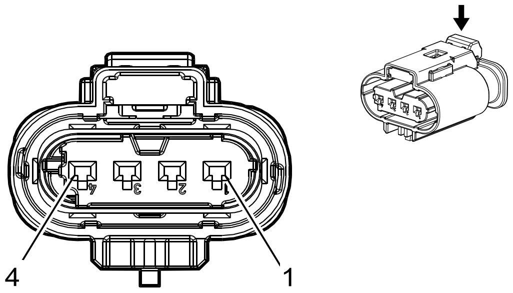
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	LV3
2	0.75	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	LV3
3	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I	LV3
4	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I	LV3

B52D Heated Oxygen Sensor - Bank 1 Sensor 2 (L82/L84/L87)



4036370

Connector Part Information

Harness Type: Engine
OEM Connector: 15532690
Service Connector: 19330920
Description: 4-Way F 1.2 Multilock Series, Sealed (GY)

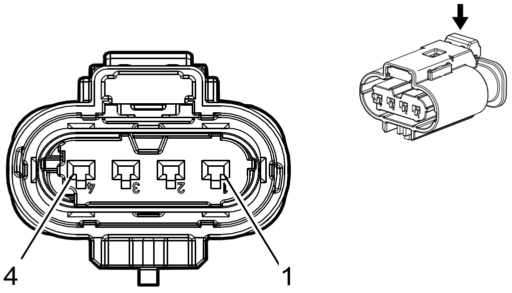
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52D Heated Oxygen Sensor - Bank 1 Sensor 2 (L82/L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	GY/WH GY/WH	3122 3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2 Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I I	L82/L84/L87 LV3
2	0.75 0.75	VT/BU VT/BU	5294 5294	Powertrain Main Relay Fused Supply 5 Powertrain Main Relay Fused Supply 5	I I	L82/L84/L87 LV3
3	0.5 0.5	WH/YE WH/YE	3121 3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2 Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I I	L82/L84/L87 LV3
4	0.5 0.5	VT/BU VT/BU	3120 3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2 Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I I	L82/L84/L87 LV3

B52D Heated Oxygen Sensor - Bank 1 Sensor 2 (LV3)



4036370

Connector Part Information

Harness Type: Engine
OEM Connector: 15532690
Service Connector: 19330920
Description: 4-Way F 1.2 Multilock Series, Sealed (GY)

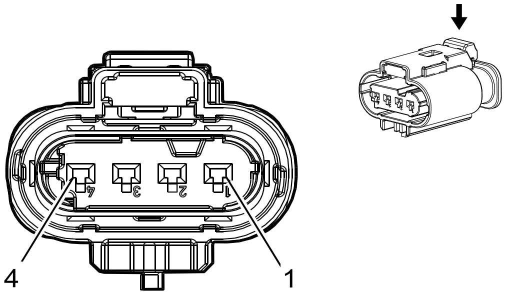
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52D Heated Oxygen Sensor - Bank 1 Sensor 2 (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I	L82/L84/L87
2	0.75	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	L82/L84/L87
3	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I	L82/L84/L87
4	0.5	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I	L82/L84/L87

B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (L82/L84/L87)



4381050

Connector Part Information

Harness Type: Engine
OEM Connector: 33253021
Service Connector: 19354075
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

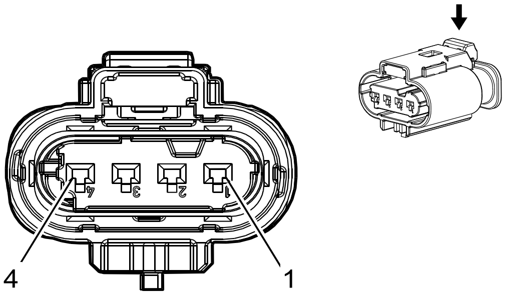
B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (L82/L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	GN/YE GN/YE	3212 3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1 Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I I	L82/L84/L87 LV3

B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (L82/L84/L87) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.75 0.75	VT/BU VT/BU	5293 5293	Powertrain Main Relay Fused Supply 4 Powertrain Main Relay Fused Supply 4	I I	L82/L84/L87 LV3
3	0.5 0.5	YE/WH YE/WH	3211 3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1 Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I I	L82/L84/L87 LV3
4	0.5 0.5	VT/WH VT/WH	3210 3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1 Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I I	L82/L84/L87 LV3

B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (LV3)



4381050

Connector Part Information

Harness Type: Engine
OEM Connector: 33253021
Service Connector: 19354075
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

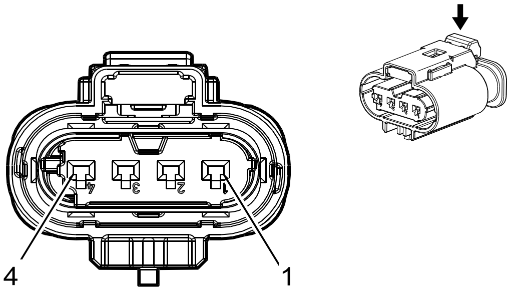
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I	L82/L84/L87
2	0.75	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	L82/L84/L87
3	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I	L82/L84/L87
4	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I	L82/L84/L87

B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (L82/L84/L87)



Connector Part Information

Harness Type: Engine
OEM Connector: 15532690
Service Connector: 19330920
Description: 4-Way F 1.2 Multilock Series, Sealed (GY)

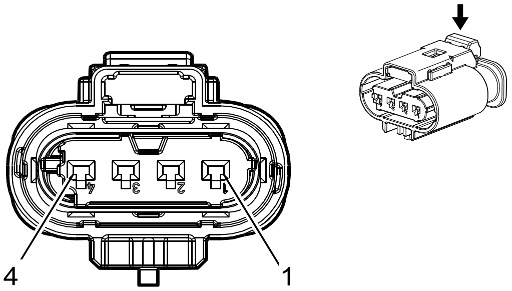
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (L82/L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	WH/BN WH/BN	3223 3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2 Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I I	L82/L84 LV3
2	0.75 0.75	VT/BU VT/BU	5294 5294	Powertrain Main Relay Fused Supply 5 Powertrain Main Relay Fused Supply 5	I I	L82/L84 LV3
3	0.5 0.5	YE/BU YE/BU	3221 3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2 Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I I	L82/L84 LV3
4	0.5 0.5	VT/GN VT/GN	3220 3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2 Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I I	L82/L84 LV3

B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (LV3)



4036370

Connector Part Information

Harness Type: Engine
OEM Connector: 15532690
Service Connector: 19330920
Description: 4-Way F 1.2 Multilock Series, Sealed (GY)

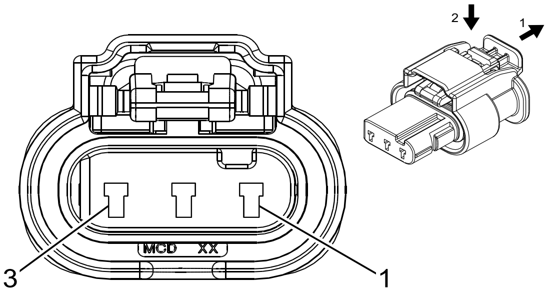
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	L82/L84
2	0.75	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	L82/L84
3	0.5	YE/BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	L82/L84
4	0.5	VT/GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	L82/L84

B55 Engine Hood Switch



4421568

Connector Part Information

Harness Type: Body
OEM Connector: 33320864
Service Connector: 19368220
Description: 3-Way F 1.2 MCON-LL Series, Sealed (BK)

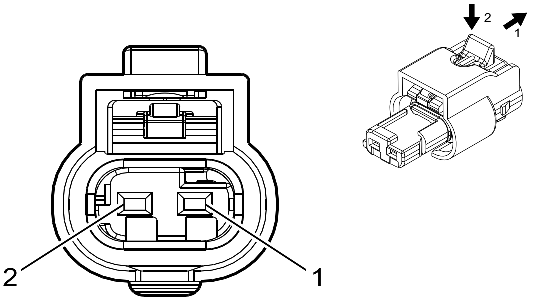
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B55 Engine Hood Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	4063	Hood Status A Signal	I	—
2	0.35	BN/GN	4064	Hood Status B Signal	I	—
3	0.35 0.75	BK BK	150 150	Ground Ground	I I	— —

B59L Front Impact Sensor - Left



4975834

Connector Part Information

Harness Type: Body
OEM Connector: 33299485
Service Connector: 19371203
Description: 2-Way F 1.2 MCON-CB Series, Sealed (BK)

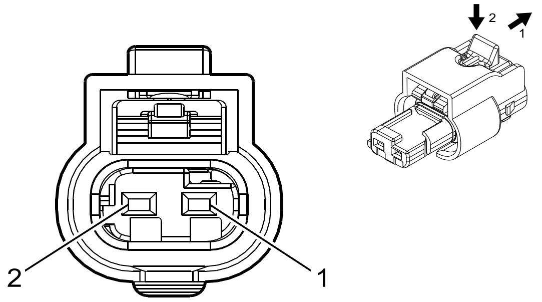
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B59L Front Impact Sensor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/YE	354	Left Front Discriminating Sensor Signal	I	—
2	0.5	BK/OG	5045	Left Front Discriminating Sensor Low Reference	I	—

B59R Front Impact Sensor - Right



4975834

Connector Part Information

Harness Type: Body
OEM Connector: 33299485
Service Connector: 19371203
Description: 2-Way F 1.2 MCON-CB Series, Sealed (BK)

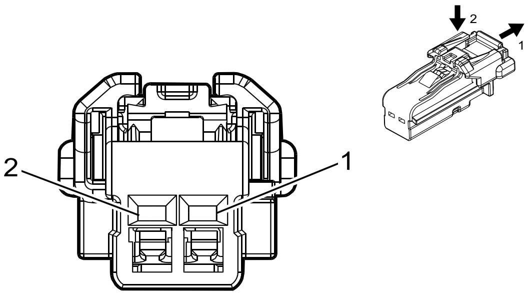
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B59R Front Impact Sensor - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/GN	1409	Right Front Discriminating Sensor Signal	I	—
2	0.5	BK/OG	5600	Right Front Discriminating Sensor Low Reference	I	—

B61P Seat Belt Tension Sensor - Passenger (Crew Cab)



4115691

Connector Part Information

Harness Type: Body
OEM Connector: 33189235
Service Connector: 19352066
Description: 2-Way F 1.2 Series (BK)

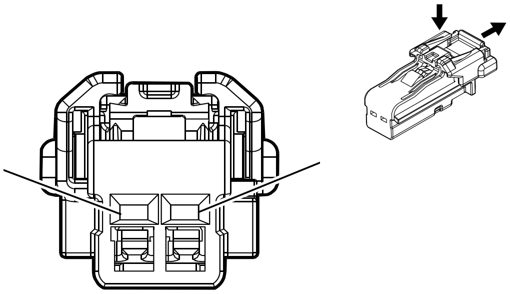
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B61P Seat Belt Tension Sensor - Passenger (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/OG	3946	Automatic Locking Retractor Switch Low Reference	I	—
2	0.5	OG/BN	3947	Automatic Locking Retractor Switch Signal	I	—

B61P Seat Belt Tension Sensor - Passenger (Extended Cab)



4115691

Connector Part Information

Harness Type: Body
OEM Connector: 35026312

Service Connector: 19352066
Description: 2-Way F 1.2 Series (BK)

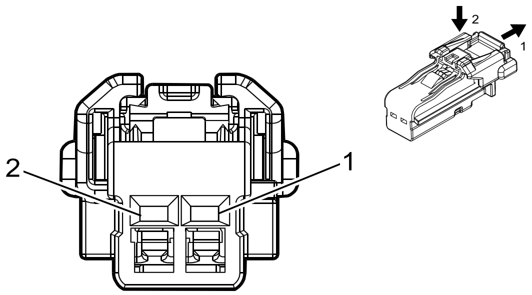
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B61P Seat Belt Tension Sensor - Passenger (Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/OG	3946	Automatic Locking Retractor Switch Low Reference	I	—
2	0.5	OG/BN	3947	Automatic Locking Retractor Switch Signal	I	—

B61P Seat Belt Tension Sensor - Passenger (Regular Cab)



4115691

Connector Part Information

Harness Type: Body
OEM Connector: 33189235
Service Connector: 19352066
Description: 2-Way F 1.2 Series (BK)

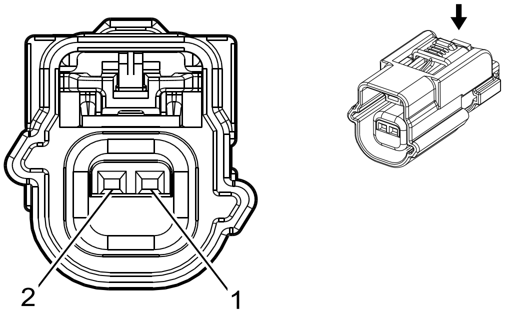
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B61P Seat Belt Tension Sensor - Passenger (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/OG	3946	Automatic Locking Retractor Switch Low Reference	I	—
2	0.5	OG/BN	3947	Automatic Locking Retractor Switch Signal	I	—

B63LF Side Impact Sensor - Left Front



3931604

Connector Part Information

Harness Type: Driver Door
OEM Connector: 33503704
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed

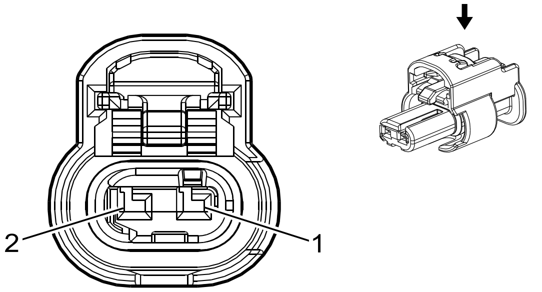
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B63LF Side Impact Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	OG/GN	2132	Left Front Side Impact Sensing Module Signal	I	—
2	0.75	BK/OG	6628	Left Front Side Impact Sensing Module Low Reference	I	—

B63LR Side Impact Sensor - Left Rear



4649903

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 33327048

Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

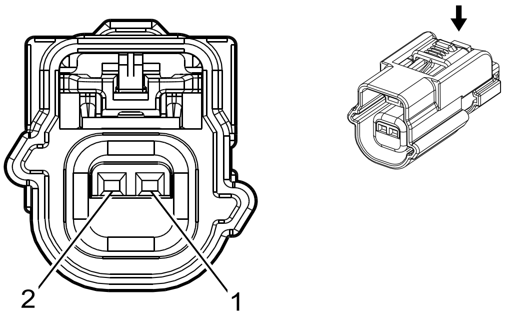
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B63LR Side Impact Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/BU	6622	Left Rear Side Impact Sensing Module Signal	I	—
2	0.5	BK/OG	6623	Left Rear Side Impact Sensing Module Low Reference	I	—

B63RF Side Impact Sensor - Right Front



3931604

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 33503704
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed

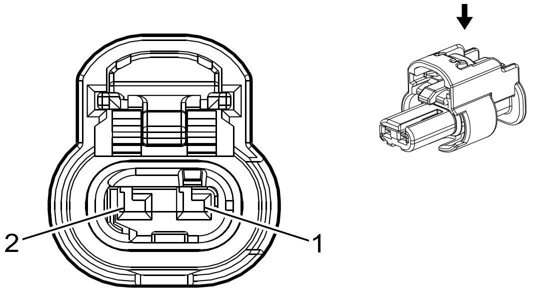
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B63RF Side Impact Sensor - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/OG	2134	Right Front Side Impact Sensing Module Signal	I	—
2	0.75	BK/OG	6629	Right Front Side Impact Sensing Module Low Reference	I	—

B63RR Side Impact Sensor - Right Rear



4649903

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 33327048
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

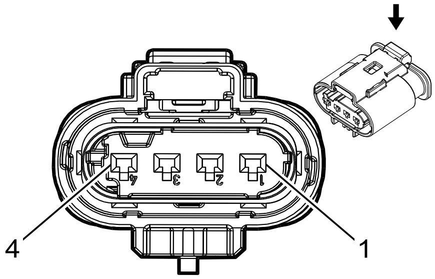
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B63RR Side Impact Sensor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/VT	6626	Right Rear Side Impact Sensing Module Signal	I	—
2	0.5	BK/OG	6627	Right Rear Side Impact Sensing Module Low Reference	I	—

B65 Intake Manifold Pressure and Air Temperature Sensor



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13815341

Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

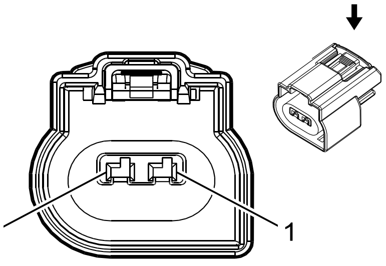
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B65 Intake Manifold Pressure and Air Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BU	6118	Manifold Air Temperature Sensor Signal	I	—
2	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—
3	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—
4	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—

B68A Knock Sensor 1 (L82/L84/L87/LV3)



2717073

Connector Part Information

Harness Type: Engine
OEM Connector: 13814755
Service Connector: 19301207
Description: 2-Way F 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

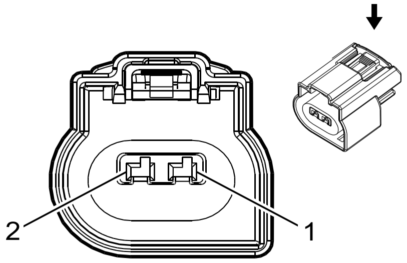
B68A Knock Sensor 1 (L82/L84/L87/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 0.75	BK/YE VT/GY	1716 496	Knock Sensor Low Reference 1 Knock Sensor Signal 1	I I	— —
2	0.75	BK/YE	1716	Knock Sensor Low Reference 1	I	—

B68A Knock Sensor 1 (L82/L84/L87/LV3) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
	0.75	VT/GY	496	Knock Sensor Signal 1	I	—

B68B Knock Sensor 2 (L82/L84/L87/LV3)



2717073

Connector Part Information

Harness Type: Engine
OEM Connector: 13814755
Service Connector: 19301207
Description: 2-Way F 150 MX Series, Sealed (BK)

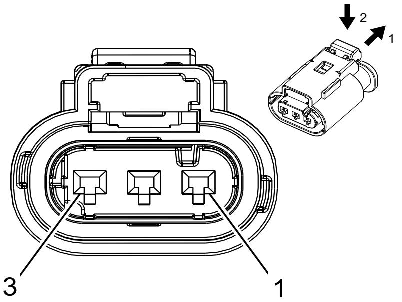
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B68B Knock Sensor 2 (L82/L84/L87/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/GY	1876	Knock Sensor Signal 2	I	L3B
	0.75	BK/GY	2303	Knock Sensor Low Reference 2	I	L82/L84/L87
	0.75	BK/GY	2303	Knock Sensor Low Reference 2	I	LV3
2	0.75	BK/GY	2303	Knock Sensor Low Reference 2	I	L3B
	0.75	WH/GY	1876	Knock Sensor Signal 2	I	L82/L84/L87
	0.75	WH/GY	1876	Knock Sensor Signal 2	I	LV3

B74 Manifold Absolute Pressure Sensor (L3B)



2717069

Connector Part Information

Harness Type: Engine
OEM Connector: 13763990
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

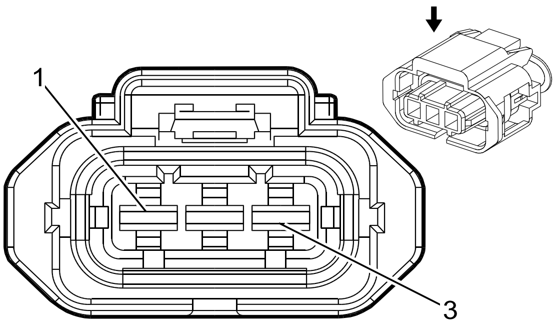
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B74 Manifold Absolute Pressure Sensor (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
2	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
3	0.5	YE	3054	Turbo Intake Pressure Sensor Signal Bank 1	I	—

B74 Manifold Absolute Pressure Sensor (L82)



1914850

Connector Part Information

Harness Type: Engine
OEM Connector: 15397338

Service Connector: 13585845
Description: 3-Way F 2.8 Junior Power Timer Series, Sealed (BK)

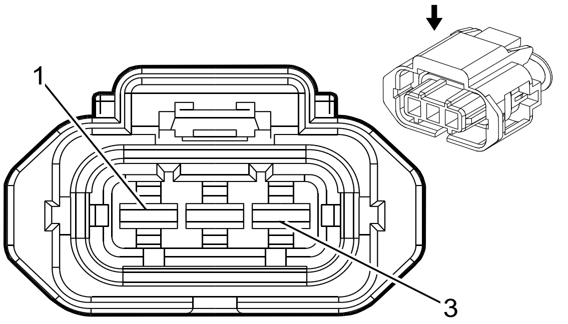
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B74 Manifold Absolute Pressure Sensor (L82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
2	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
3	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—

B74 Manifold Absolute Pressure Sensor (L84/L87)



1914850

Connector Part Information

Harness Type: Engine
OEM Connector: 15397338
Service Connector: 13585845
Description: 3-Way F 2.8 Junior Power Timer Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

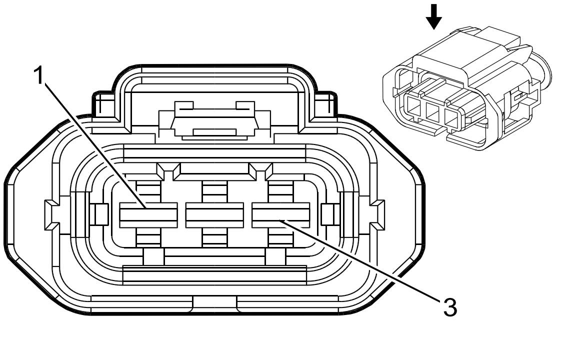
B74 Manifold Absolute Pressure Sensor (L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
2	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—

B74 Manifold Absolute Pressure Sensor (L84/L87) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—

B74 Manifold Absolute Pressure Sensor (LV3)



1914850

Connector Part Information

Harness Type: Engine
OEM Connector: 15397338
Service Connector: 13585845
Description: 3-Way F 2.8 Junior Power Timer Series, Sealed (BK)

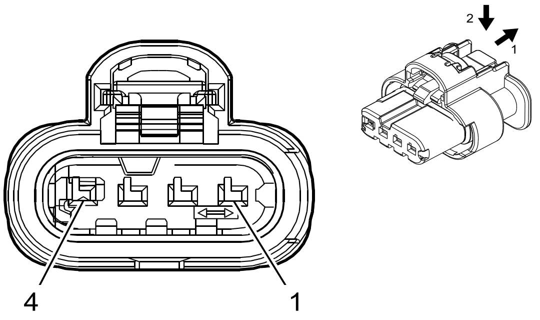
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B74 Manifold Absolute Pressure Sensor (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
2	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
3	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—

B75C Multifunction Intake Air Sensor



4934614

Connector Part Information

Harness Type: Engine
OEM Connector: 33367416
Service Connector: 19371196
Description: 4-Way F 1.2 MCON-CB Series, Sealed (BK)

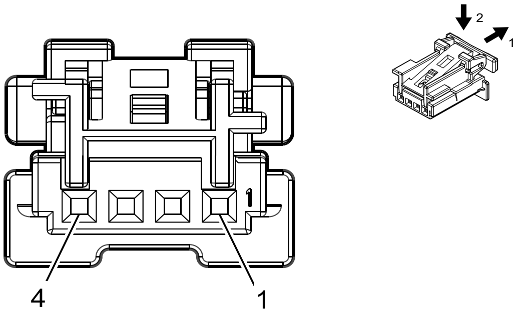
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B75C Multifunction Intake Air Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	—
2	0.5	GN/WH	492	Mass Air Flow Sensor Signal	I	—
3	0.5	GN/WH	4622	Local Interconnect Network Serial Data Bus 22	I	—
4	0.5	BK/WH	451	Signal Ground	I	L3B
	1	BK/WH	451	Signal Ground	I	LM2
	0.75	BK/WH	451	Signal Ground	I	LV3

B80 Park Brake Switch



4997407

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35082250
Service Connector: 19371192
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

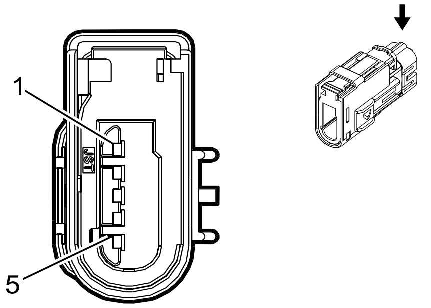
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B80 Park Brake Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/GN	5140	Battery Positive Voltage	I	—
2	0.35	GN/YE	2731	Local Interconnect Network Bus 31	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	BK	1850	Ground	I	—

B87 Rearview Camera (5N5)



3277922

Connector Part Information

Harness Type: Rearview Camera Jumper
OEM Connector: 13934096
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 1.2 Series, Sealed (L-GY)

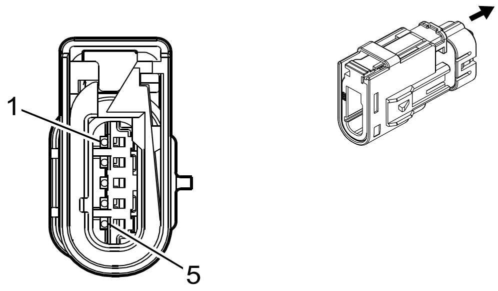
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B87 Rearview Camera (5N5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU	6974	Camera Low Reference	I	—
2	0.5	WH/BU	6973	Camera Signal 2	II	—
3	0.5	GY/YE	6972	Camera Signal 2 +	II	—
4	0.5	BK/WH	1751	Signal Ground	II	—
5	0.5	VT/GN	1739	Run/Crank Ignition 1 Voltage	II	—

B87 Rearview Camera (UVC)



4808321

Connector Part Information

Harness Type: Endgate
OEM Connector: 35028910
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 1.2 Series, Sealed (GY)

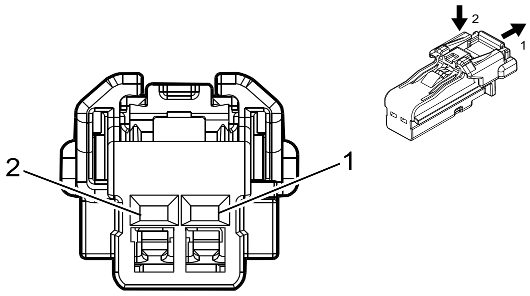
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B87 Rearview Camera (UVC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/YE	6972	Camera Signal 2 +	II	—
2	0.5	WH/BU	6973	Camera Signal 2	II	—
3	0.35	BU	6974	Camera Low Reference	I	—
4	0.5	BK/WH	1751	Signal Ground	II	—
5	0.5	VT/GN	1739	Run/Crank Ignition 1 Voltage	II	—

B88D Seat Belt Switch - Driver



4115691

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 6098-8431
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Series (BK)

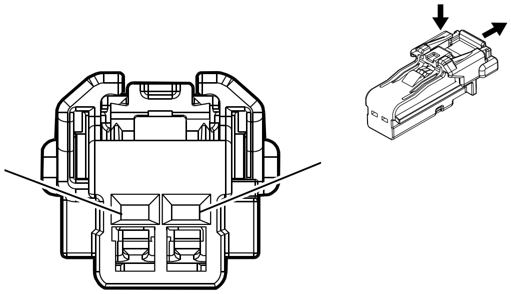
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B88D Seat Belt Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/OG	1363	Driver Seat Belt Switch Low Reference	I	—
2	0.35	OG/BN	238	Driver Seat Belt Switch Signal	I	—

B88P Seat Belt Switch - Passenger



4115691

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 6098-8431
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Series (BK)

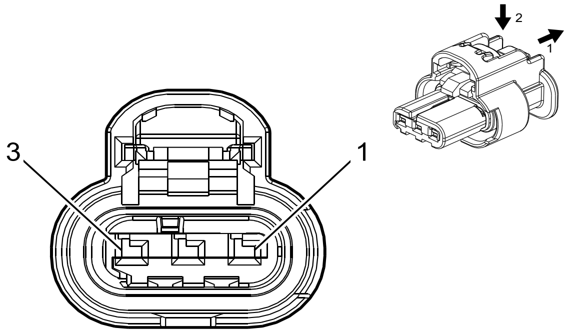
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B88P Seat Belt Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/OG	1361	Passenger Seat Belt Switch Low Reference	I	—
2	0.35	OG/VT	1362	Passenger Seat Belt Switch Signal	I	—

B96 Cylinder Head Temperature Sensor (LM2)



4994602

Connector Part Information

Harness Type: Engine
OEM Connector: 33358809
Service Connector: 19371199
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

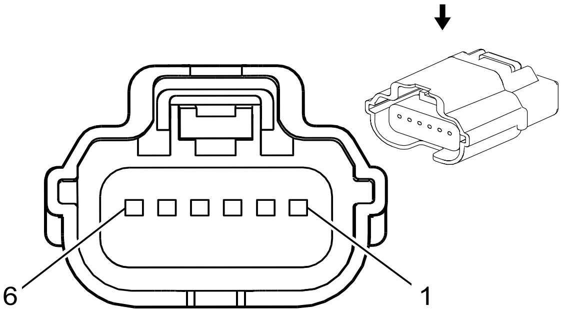
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B96 Cylinder Head Temperature Sensor (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	I	—
2	0.5	GN/YE	37	Engine Metal Temperature Sensor Signal	I	—
3	0.5	BN/YE	1372	Engine Metal Temperature Sensor Signal (2)	I	—

B107 Accelerator Pedal Position Sensor (Crew Cab)



1974974

Connector Part Information

Harness Type: Body
OEM Connector: 13835162
Service Connector: 19356496
Description: 6-Way F 0.64 Series, Sealed (BK)

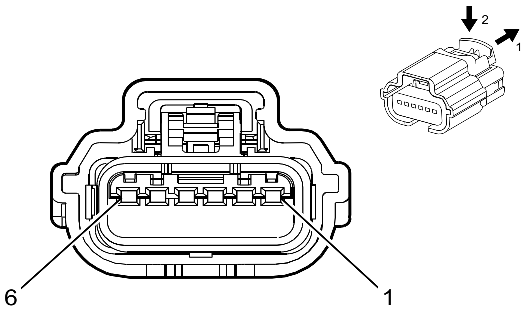
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B107 Accelerator Pedal Position Sensor (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
2	0.35	YE/WH	1161	Accelerator Pedal Position Signal 1	I	—
3	0.35	BK/BU	1271	Accelerator Pedal Position Low Reference 1	I	—
4	0.35	BK/VT	1272	Accelerator Pedal Position Low Reference 2	I	—
5	0.35	GN/WH	1162	Accelerator Pedal Position Signal 2	I	—
6	0.35	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	I	—

B107 Accelerator Pedal Position Sensor (Extended Cab)



5157678

Connector Part Information

Harness Type: Body
OEM Connector: 35199156
Service Connector: 19356496
Description: 6-Way F 64 Series, Sealed (BK)

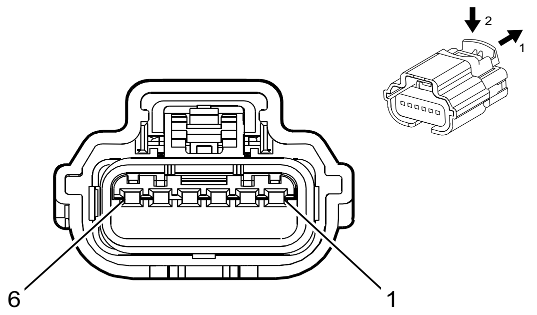
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B107 Accelerator Pedal Position Sensor (Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
2	0.35	YE/WH	1161	Accelerator Pedal Position Signal 1	I	—
3	0.35	BK/BU	1271	Accelerator Pedal Position Low Reference 1	I	—
4	0.35	BK/VT	1272	Accelerator Pedal Position Low Reference 2	I	—
5	0.35	GN/WH	1162	Accelerator Pedal Position Signal 2	I	—
6	0.35	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	I	—

B107 Accelerator Pedal Position Sensor (Regular Cab)



5157678

Connector Part Information

Harness Type: Body
OEM Connector: 35199156
Service Connector: 19356496
Description: 6-Way F 64 Series, Sealed (BK)

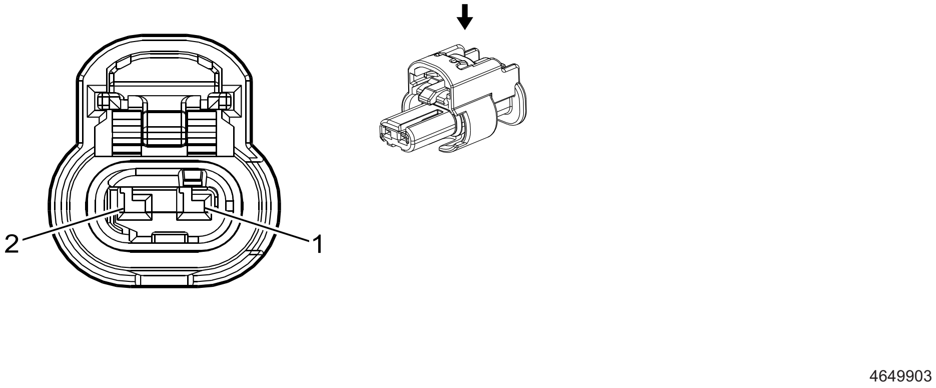
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B107 Accelerator Pedal Position Sensor (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
2	0.35	YE/WH	1161	Accelerator Pedal Position Signal 1	I	—
3	0.35	BK/BU	1271	Accelerator Pedal Position Low Reference 1	I	—
4	0.35	BK/VT	1272	Accelerator Pedal Position Low Reference 2	I	—
5	0.35	GN/WH	1162	Accelerator Pedal Position Signal 2	I	—
6	0.35	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	I	—

B110 Battery Sensor Module X1



Connector Part Information

Harness Type: Body
OEM Connector: 33327048
Service Connector: 19366858
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

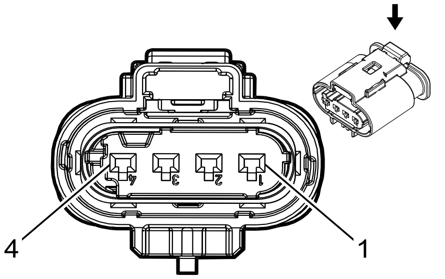
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B110 Battery Sensor Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/VT	4621	Local Interconnect Network Serial Data Bus 21	I	—
2	0.75	RD/YE	2340	Battery Positive Voltage	I	—

B111B Turbocharger Boost/Intake Air Temperature Sensor



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13815341
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

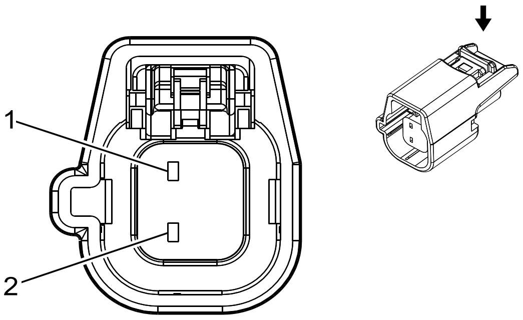
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B111B Turbocharger Boost/Intake Air Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	7348	Induction Air Temperature Sensor 2 Signal	I	—
2	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
3	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
4	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—

B118B Windshield Washer Fluid Level Switch (Crew Cab)



3958652

Connector Part Information

Harness Type: Body
OEM Connector: 33113086
Service Connector: 13593220
Description: 2-Way F 1.5 Series (L-GY)

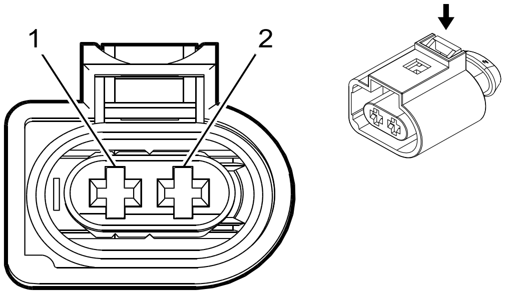
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B118B Windshield Washer Fluid Level Switch (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT	185	Low Washer Fluid Indicator Control	I	—
2	0.35	BK	150	Ground	I	—

B118B Windshield Washer Fluid Level Switch (Extended Cab)



2474738

Connector Part Information

Harness Type: Body
OEM Connector: 10863916
Service Connector: 19368727
Description: 2-Way F 2.8 MDK5 Series, Sealed (BK)

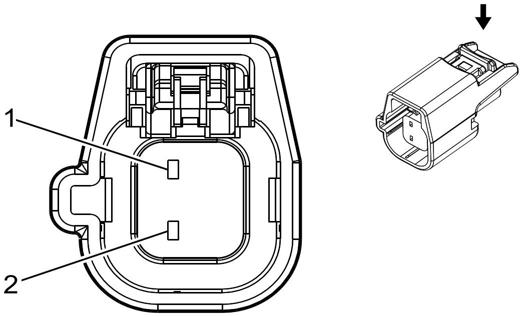
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B118B Windshield Washer Fluid Level Switch (Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/VT	228	Windshield Washer Pump Control	I	—
2	0.75	BK	150	Ground	I	—

B118B Windshield Washer Fluid Level Switch (Regular Cab)



3958652

Connector Part Information

Harness Type: Body
OEM Connector: 33113086
Service Connector: 13593220
Description: 2-Way F 1.5 Series (L-GY)

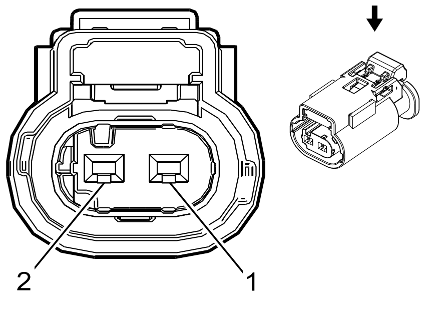
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B118B Windshield Washer Fluid Level Switch (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT	185	Low Washer Fluid Indicator Control	I	—
2	0.35	BK	150	Ground	I	—

B130A Exhaust Gas Recirculation Temperature Sensor 1 (LM2)



2830969

Connector Part Information

Harness Type: Engine
OEM Connector: 13840071

Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed (D-GY)

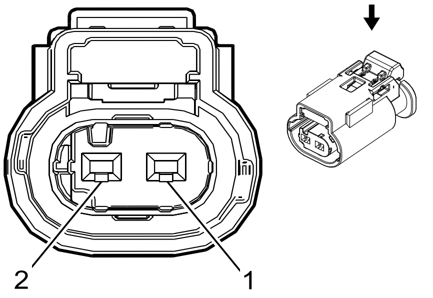
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B130A Exhaust Gas Recirculation Temperature Sensor 1 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/WH	5277	Exhaust Gas Temperature Sensor 1	I	—
2	0.5	BK/BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	I	—

B130AH Exhaust Gas Recirculation Temperature Sensor 1 - High Pressure (LM2)



2830969

Connector Part Information

Harness Type: Engine
OEM Connector: 13840071
Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed (D-GY)

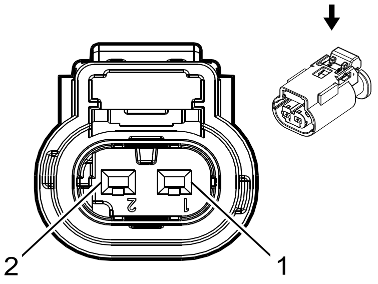
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B130AH Exhaust Gas Recirculation Temperature Sensor 1 - High Pressure (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/GN	3236	Exhaust Gas Recirculation Temperature Sensor 2 Signal	I	—
2	0.5	BK/YE	6275	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	I	—

B130B Exhaust Gas Recirculation Temperature Sensor 2 (LM2)



2717037

Connector Part Information

Harness Type: Engine
OEM Connector: 13735325
Service Connector: 13587325
Description: 2-Way F 1.2 Multilock Series, Sealed (L-GY)

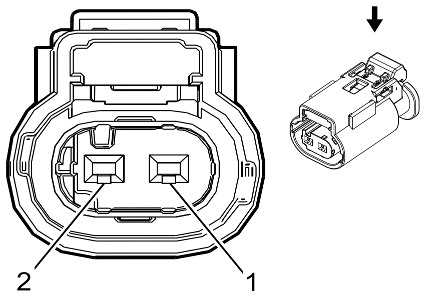
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B130B Exhaust Gas Recirculation Temperature Sensor 2 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/GN	5377	Exhaust Gas Temperature Sensor 2	I	—
2	0.5	BK/BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	I	—

B130BH Exhaust Gas Recirculation Temperature Sensor 2 - High Pressure (LM2)



2830969

Connector Part Information

Harness Type: Engine
OEM Connector: 13840071

Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed (D-GY)

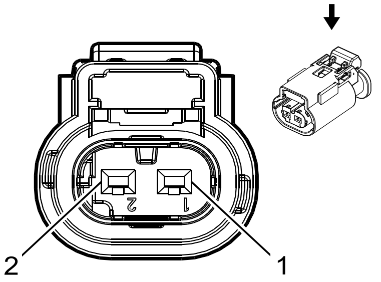
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B130BH Exhaust Gas Recirculation Temperature Sensor 2 - High Pressure (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/GY	3234	Exhaust Gas Recirculation Temperature Sensor 3 Signal	I	—
2	0.5	BK/GN	3235	Exhaust Gas Recirculation Temperature Sensor 3 Low Reference	I	—

B130C Exhaust Gas Recirculation Temperature Sensor 3 (LM2)



2717037

Connector Part Information

Harness Type: Engine
OEM Connector: 13735325
Service Connector: 13587325
Description: 2-Way F 1.2 Multilock Series, Sealed (L-GY)

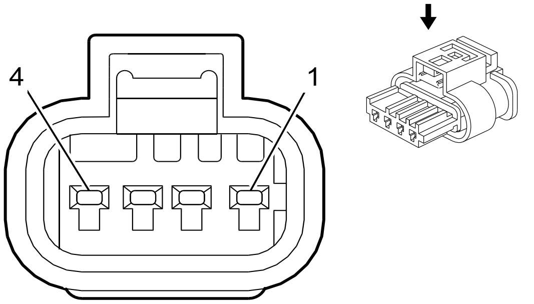
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B130C Exhaust Gas Recirculation Temperature Sensor 3 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/GN	5378	Exhaust Gas Temperature Sensor 3	I	—
2	0.5	BK/GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	I	—

B136 Exhaust Particulate Matter Sensor (LM2)



2487928

Connector Part Information

Harness Type: Chassis
OEM Connector: 13781047
Service Connector: 13581092
Description: 4-Way F 1.2 Series, Sealed (BK)

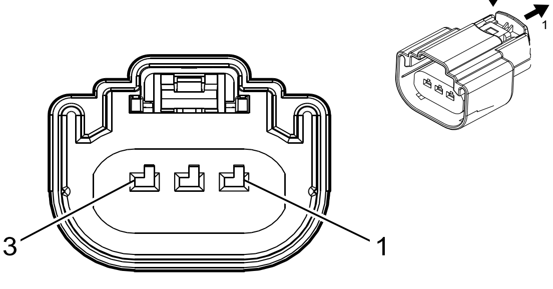
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B136 Exhaust Particulate Matter Sensor (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK/WH	1651	Signal Ground	I	—
2	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
3	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
4	0.75	VT/BU	3674	NOx Sensor 1 Control	I	—

B139 Transfer Case 2WD/4WD Actuator Position Sensor (NP0/NQH)



4569745

Connector Part Information

Harness Type: Engine
OEM Connector: 33343869
Service Connector: 19179750
Description: 3-Way F 150 MX Series, Sealed (BK)

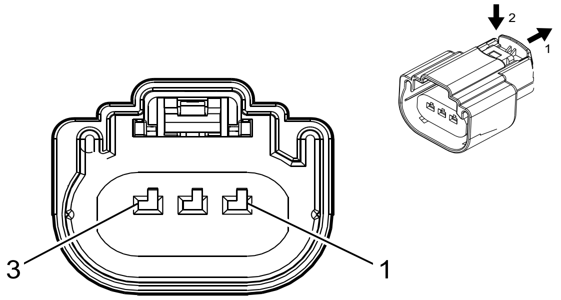
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B139 Transfer Case 2WD/4WD Actuator Position Sensor (NP0/NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/RD	7477	Rotary Position Sensor 5V Reference	I	—
2	0.5	WH/GN	7479	Rotary Position Sensor Signal	I	—
3	0.5	YE/BK	7478	Rotary Position Sensor Low Reference	I	—

B150 Fuel Tank Pressure Sensor



4589538

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343864
Service Connector: 84569854
Description: 3-Way F 150 MX Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

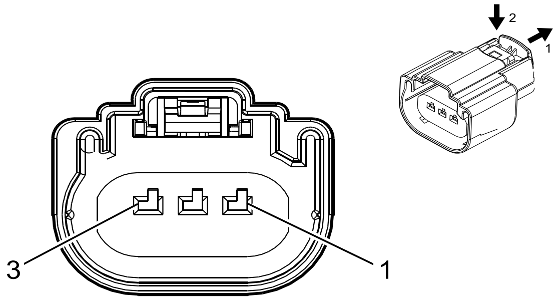
B150 Fuel Tank Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/WH	890	Fuel Tank Pressure Sensor Signal	I	—

B150 Fuel Tank Pressure Sensor (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.5	BK/BN	6284	Fuel Tank Vapor Pressure Sensor Low Reference	I	—
3	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—

B152LF Suspension Position Sensor - Left Front (Z45)



4589538

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343864
Service Connector: 84569854
Description: 3-Way F 150 MX Series, Sealed (GY)

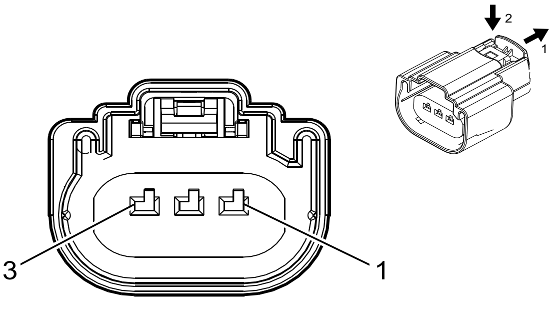
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B152LF Suspension Position Sensor - Left Front (Z45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/RD	1205	Left Front Strut Position Sensor 5V Reference	I	—
2	0.5	BK/BU	1206	Left Front Strut Position Sensor Low Reference	I	—
3	0.5	BN/WH	1207	Left Front Strut Position Sensor Signal	I	—

B152LR Suspension Position Sensor - Left Rear (Z45)



4589538

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343864
Service Connector: 84569854
Description: 3-Way F 150 MX Series, Sealed (GY)

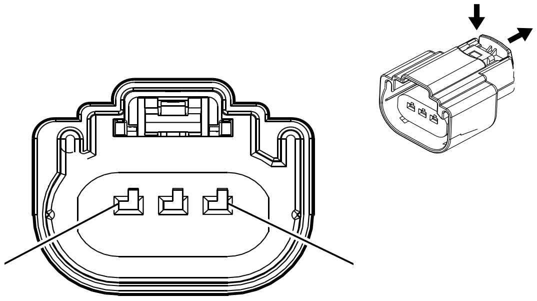
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B152LR Suspension Position Sensor - Left Rear (Z45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/RD	1208	Left Rear Strut Position Sensor 5V Reference	I	—
2	0.5	BK/GN	1209	Left Rear Strut Position Sensor Low Reference	I	—
3	0.5	GN/WH	1210	Left Rear Strut Position Sensor Signal	I	—

B152RF Suspension Position Sensor - Right Front (Z45)



4589538

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343864

Service Connector: 84569854
Description: 3-Way F 150 MX Series, Sealed (GY)

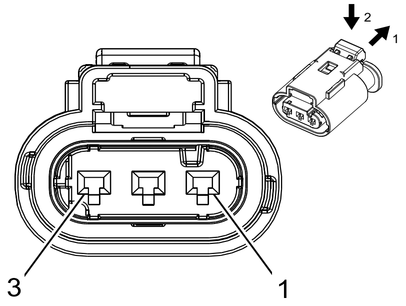
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B152RF Suspension Position Sensor - Right Front (Z45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/RD	1211	Right Front Strut Position Sensor 5V Reference	I	—
2	0.5	BK/GY	1212	Right Front Strut Position Sensor Low Reference	I	—
3	2	YE/WH	1213	Right Front Strut Position Sensor Signal	I	—

B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor (LM2)



2717069

Connector Part Information

Harness Type: Engine
OEM Connector: 13763990
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

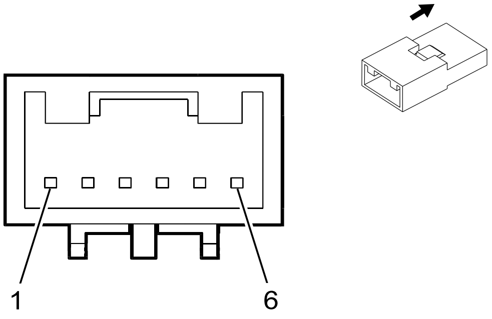
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—
2	0.5	BU	6053	Exhaust Pressure Sensor Signal 1	I	—
3	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—

B160 Windshield Temperature and Inside Moisture Sensor (ASV)



2839920

Connector Part Information

Harness Type: Headliner
OEM Connector: 13770074
Service Connector: 19299681
Description: 6-Way M 0.64 Kaizen Series (BK)

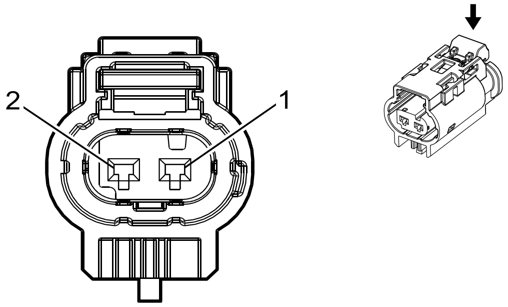
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-65B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B160 Windshield Temperature and Inside Moisture Sensor (ASV)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/RD	597	5V Reference	I	—
2	0.35	GY/BU	7564	Humidity Sensor Signal	I	—
3	0.35	BK/BU	7566	Humidity/Windscreen Temp Sensor Low Reference	I	—
4	0.35	GY/GN	7565	Windscreen Temp Sensor Signal	I	—
5	0.35	YE/BU	3197	Humidity Temperature Sensor Signal	I	—
6	—	—	—	Not Occupied	—	—

B172LF Brake Pad Wear Sensor - Left Front



3747581

Connector Part Information

Harness Type: Chassis
OEM Connector: 33226772
Service Connector: 84769085
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

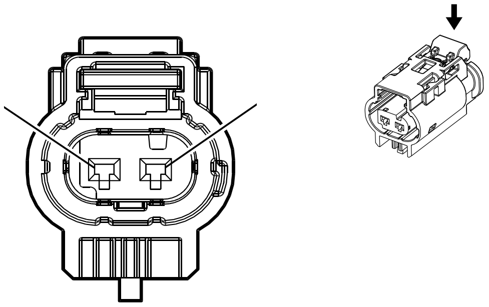
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B172LF Brake Pad Wear Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	1612	Brake Lining Wear Sensor Signal Left Front	I	—
2	0.75	BK/WH	1751	Signal Ground	I	—

B172LR Brake Pad Wear Sensor - Left Rear



3747581

Connector Part Information

Harness Type: Rear Axle
OEM Connector: 10094234
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

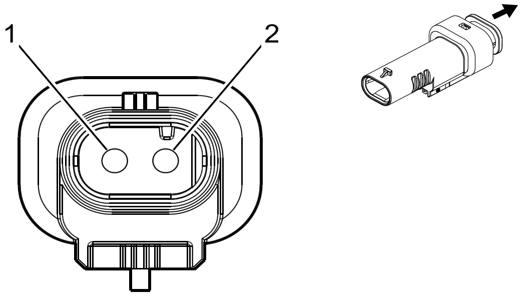
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B172LR Brake Pad Wear Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN/YE	1616	Brake Lining Wear Sensor Signal Rear	I	—
2	0.75	BK	2050	Ground	I	—

B172RR Brake Pad Wear Sensor - Right Rear



4992757

Connector Part Information

Harness Type: Chassis
OEM Connector: 33356666
Service Connector: 19371200
Description: 2-Way M 1.2 MLK Series, Sealed (GY)

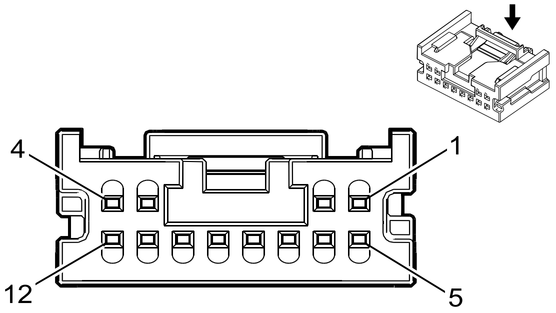
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B172RR Brake Pad Wear Sensor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/YE	1616	Brake Lining Wear Sensor Signal Rear	I	—
2	0.5	BK/WH	1751	Signal Ground	I	—

B174W Frontview Camera - Windshield (UEU)



3824362

Connector Part Information

Harness Type: Headliner
OEM Connector: 33235297
Service Connector: 13507121
Description: 12-Way F Mini 50 Series (BK)

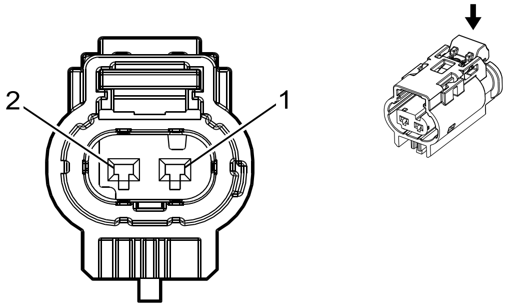
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	EL-35616-58 (BK)	EL-38125-58	Not Available	Not Available	Not Available	Not Available

B174W Frontview Camera - Windshield (UEU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK/WH	1851	Signal Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	RD/GN	3140	Battery Positive Voltage	I	—
4	0.35	WH	3152	Lane Departure Warning Indicator Control	I	—
5	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	—
6	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	—
7	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	—
8	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	—
9	0.35	WH/BU	5986	Serial Data Communication Enable	I	—
10	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	—
11	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
12	—	—	—	Not Occupied	—	—

B193A Charge Air Cooler Inlet Temperature Sensor (LM2)



3747581

Connector Part Information

Harness Type: Engine
OEM Connector: 33226772
Service Connector: 84769085
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

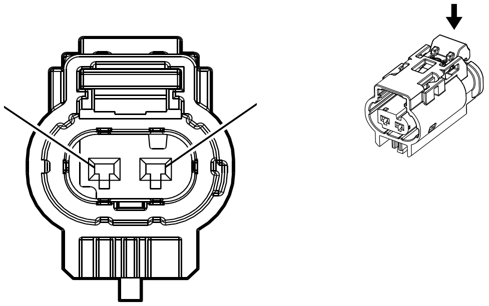
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B193A Charge Air Cooler Inlet Temperature Sensor (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	I	—
2	0.5	YE/BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	I	—

B193B Charge Air Cooler Outlet Temperature Sensor (LM2)



3747581

Connector Part Information

Harness Type: Engine
OEM Connector: 33226772

Service Connector: 84769085
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

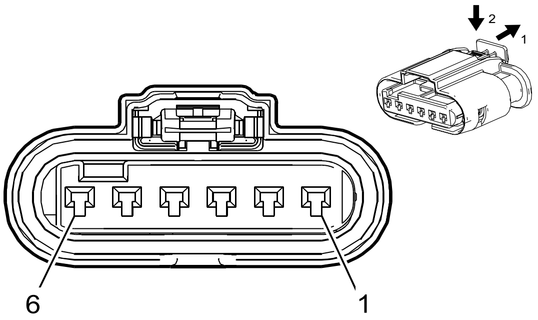
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B193B Charge Air Cooler Outlet Temperature Sensor (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	I	—
2	0.5	YE/BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	I	—

B195A Nitrogen Oxides Sensor 1 (LM2)



3960142

Connector Part Information

Harness Type: Engine
OEM Connector: 33230495
Service Connector: 19368560
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

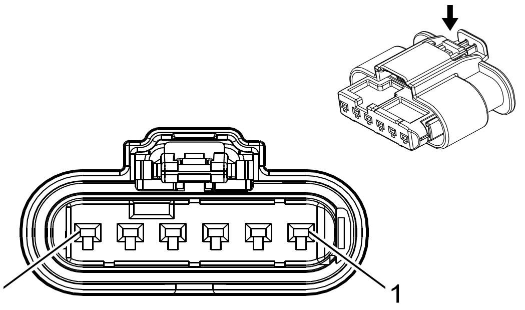
B195A Nitrogen Oxides Sensor 1 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	3674	NOx Sensor 1 Control	I	—
2	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
3	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
4	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—

B195A Nitrogen Oxides Sensor 1 (LM2) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
6	0.5	BK/WH	451	Signal Ground	I	—

B195B Nitrogen Oxides Sensor 2 (LM2)



4455148

Connector Part Information

Harness Type: Chassis
OEM Connector: 33226735
Service Connector: 19368561
Description: 6-Way F 1.2 MCON-LL Series, Sealed (GY)

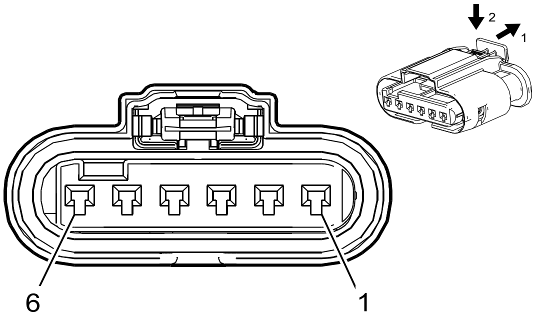
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B195B Nitrogen Oxides Sensor 2 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	3674	NOx Sensor 1 Control	I	—
2	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
3	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
4	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
5	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
6	0.5	BK/WH	1651	Signal Ground	I	—

B195C Nitrogen Oxides Sensor 3 (LM2)



3960142

Connector Part Information

Harness Type: Chassis
OEM Connector: 33230495
Service Connector: 19368560
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

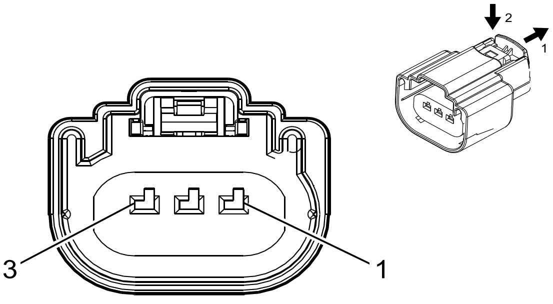
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B195C Nitrogen Oxides Sensor 3 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	3674	NOx Sensor 1 Control	I	—
2	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
3	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
4	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
5	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
6	0.5	BK/WH	1651	Signal Ground	I	—

B198 Fuel Composition Sensor (FHS)



4829227

Connector Part Information

Harness Type: Chassis
OEM Connector: 33362826
Service Connector: 19371197
Description: 3-Way F 150 MX Series, Sealed (GY)

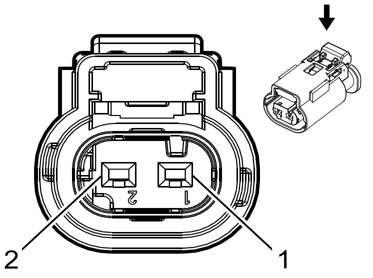
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B198 Fuel Composition Sensor (FHS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	—
2	0.5	BK/WH	451	Signal Ground	I	—
3	0.5	WH	1579	Fuel Temperature/Composition Signal	I	—

B203 Radiator Coolant Temperature Sensor (L3B/LM2)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

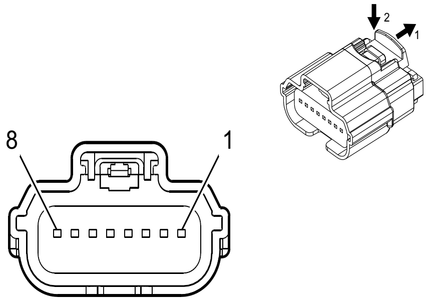
B203 Radiator Coolant Temperature Sensor (L3B/LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BK	3000	Coolant Temperature Sensor 2 Signal	I	L3B

B203 Radiator Coolant Temperature Sensor (L3B/LM2) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
	0.5	YE/BK	3000	Coolant Temperature Sensor 2 Signal	I	LM2
2	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	L3B
	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	I	LM2

B218L Side Object Sensor Module - Left (UKC)



4708234

Connector Part Information

Harness Type: Rear Bumper
OEM Connector: 33204059
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 64 Series, Sealed (BK)

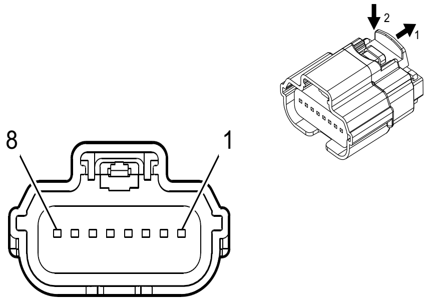
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B218L Side Object Sensor Module - Left (UKC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/YE	3810	High Speed GMLAN Serial Data (-) 5	I	—
2	0.5	BU/WH	3812	High Speed GMLAN Serial Data (+) 5	I	—
3	0.5	BK/WH	1751	Signal Ground	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
7	0.35	GY/YE	1760	Left Side Object Detection LED Control	I	—
8	0.5	RD/GN	1840	Battery Positive Voltage	I	—

B218R Side Object Sensor Module - Right (UKC)



4708234

Connector Part Information

Harness Type: Rear Bumper
OEM Connector: 33204059
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 64 Series, Sealed (BK)

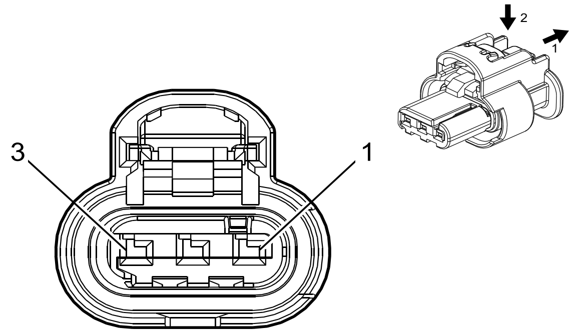
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B218R Side Object Sensor Module - Right (UKC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/YE	3810	High Speed GMLAN Serial Data (-) 5	I	—
2	0.5	BU/WH	3812	High Speed GMLAN Serial Data (+) 5	I	—
3	0.5	BK/WH	1751	Signal Ground	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
7	0.35	GY	1761	Right Side Object Detection LED Control	I	—
8	0.5	RD/GN	1840	Battery Positive Voltage	I	—

B306A Parking Assist Sensor - Front Left Outer (UD5)



4581126

Connector Part Information

Harness Type: Front Bumper
OEM Connector: 33358800
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

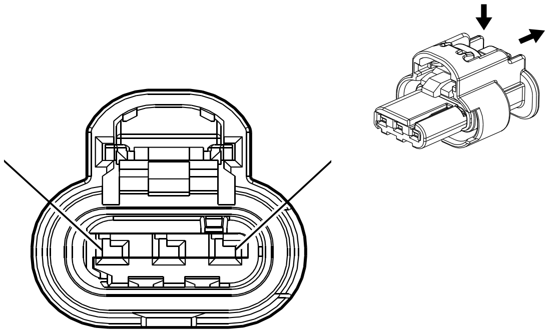
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306A Parking Assist Sensor - Front Left Outer (UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/VT	5213	Front Parking Left/Right/Mid Sensor	I	—
2	0.5	VT/WH	5215	Front Parking Left Corner Sensor	I	—
3	0.5	BK/BU	5214	Front Parking Sensor Low Reference	I	—

B306B Parking Assist Sensor - Front Left Middle (UD5)



4581126

Connector Part Information

Harness Type: Front Bumper
OEM Connector: 33358800

Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

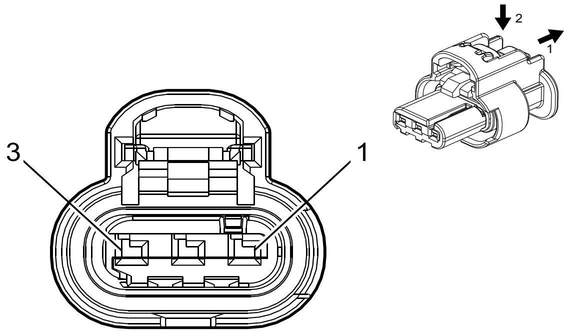
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306B Parking Assist Sensor - Front Left Middle (UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/VT	5213	Front Parking Left/Right/Mid Sensor	I	—
2	0.5	YE/GY	5216	Front Parking Left Mid Sensor	I	—
3	0.5	BK/BU	5214	Front Parking Sensor Low Reference	I	—

B306C Parking Assist Sensor - Front Right Middle (UD5)



4581126

Connector Part Information

Harness Type: Front Bumper
OEM Connector: 33358800
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

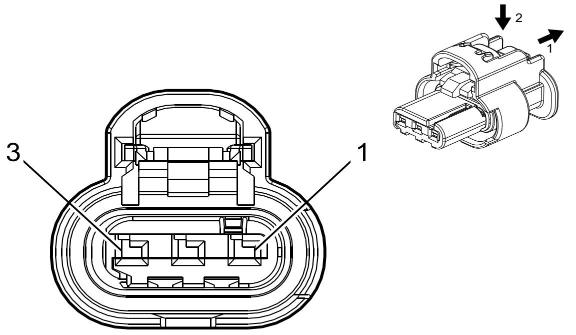
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306C Parking Assist Sensor - Front Right Middle (UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/VT	5213	Front Parking Left/Right/Mid Sensor	I	—
2	0.5	VT/GY	5218	Front Parking Right Mid Sensor	I	—
3	0.5	BK/BU	5214	Front Parking Sensor Low Reference	I	—

B306D Parking Assist Sensor - Front Right Outer (UD5)



4581126

Connector Part Information

Harness Type: Front Bumper
OEM Connector: 33358800
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

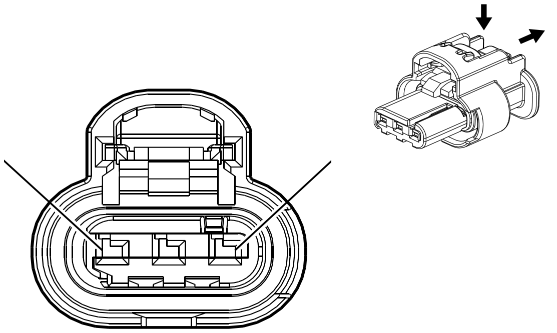
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306D Parking Assist Sensor - Front Right Outer (UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/VT	5213	Front Parking Left/Right/Mid Sensor	I	—
2	0.5	WH/GY	5217	Front Parking Right Corner Sensor	I	—
3	0.5	BK/BU	5214	Front Parking Sensor Low Reference	I	—

B306E Parking Assist Sensor - Rear Left Outer (UD5/UD7)



4581126

Connector Part Information

Harness Type: Rear Bumper
OEM Connector: 33358800

Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

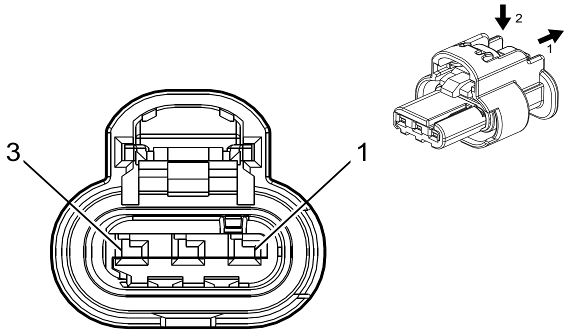
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306E Parking Assist Sensor - Rear Left Outer (UD5/UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Control	I	—
2	0.5	YE	2375	Left Rear Corner Object Sensor Signal	I	—
3	0.5	BK/GY	2379	Object Sensor Low Reference	I	—

B306F Parking Assist Sensor - Rear Left Middle (UD5/UD7)



4581126

Connector Part Information

Harness Type: Rear Bumper
OEM Connector: 33358800
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

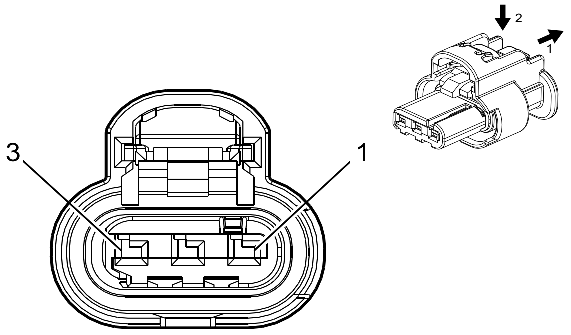
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306F Parking Assist Sensor - Rear Left Middle (UD5/UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Control	I	—
2	0.5	YE/BU	2376	Left Rear Middle Object Sensor Signal	I	—
3	0.5	BK/GY	2379	Object Sensor Low Reference	I	—

B306G Parking Assist Sensor - Rear Right Middle (UD5/UD7)



4581126

Connector Part Information

Harness Type: Rear Bumper
OEM Connector: 33358800
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

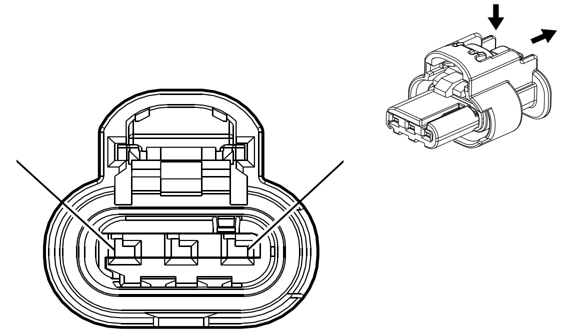
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306G Parking Assist Sensor - Rear Right Middle (UD5/UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Control	I	—
2	0.5	YE/WH	2377	Right Rear Middle Object Sensor Signal	I	—
3	0.5	BK/GY	2379	Object Sensor Low Reference	I	—

B306H Parking Assist Sensor - Rear Right Outer (UD5/UD7)



4581126

Connector Part Information

Harness Type: Rear Bumper
OEM Connector: 33358800

Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

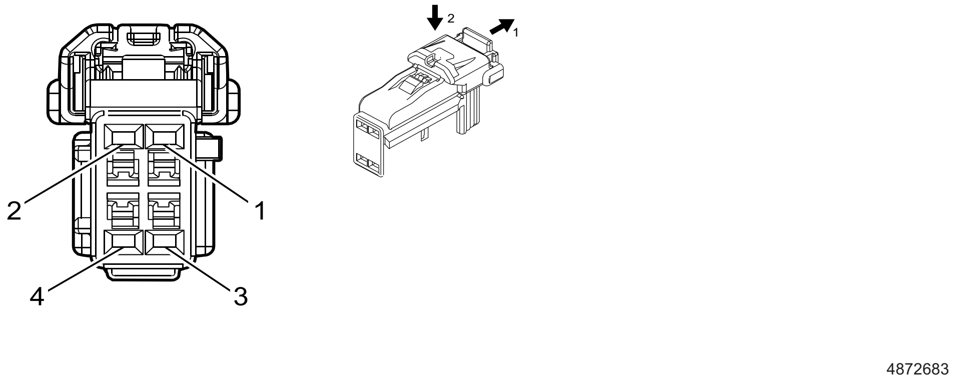
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306H Parking Assist Sensor - Rear Right Outer (UD5/UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Control	I	—
2	0.5	YE/VT	2378	Right Rear Corner Object Sensor Signal	I	—
3	0.5	BK/GY	2379	Object Sensor Low Reference	I	—

B316 Transmission Park Valve Position Switch



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35029308
Service Connector: 19369633
Description: 4-Way F 1.2 Series (BK)

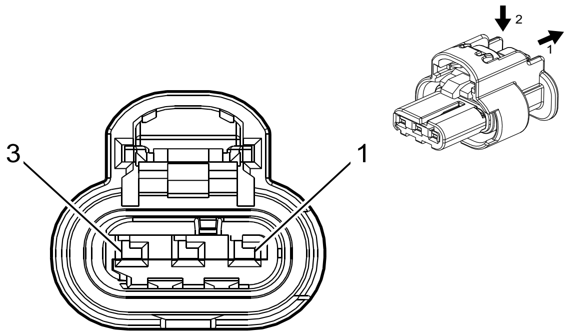
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B316 Transmission Park Valve Position Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/WH	816	Brake Transmission Shift Interlock Solenoid Control	I	—
2	0.35	BK	1850	Ground	I	—
3	0.35	GN/WH	1932	Shift Select Switch Park Signal	I	—
4	0.35	BK	1850	Ground	I	—

B321 Crankcase Pressure Sensor (LM2)



4778903

Connector Part Information

Harness Type: Engine
OEM Connector: 33358808
Service Connector: 19369810
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

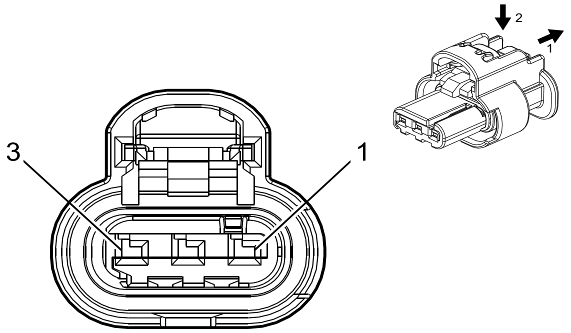
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B321 Crankcase Pressure Sensor (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	LM2
2	0.5	YE/GY	3926	Crankcase Differential Pressure Sensor Signal	I	LM2
3	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	LM2

B338A Intake Camshaft Profile Sleeve Position Sensor 1 (L3B)



4581126

Connector Part Information

Harness Type: Engine
OEM Connector: 33358800
Service Connector: 19366844
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

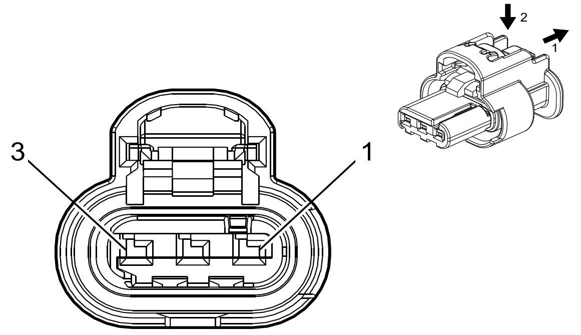
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B338A Intake Camshaft Profile Sleeve Position Sensor 1 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—
2	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—
3	0.5	VT/WH	3744	Camshaft Intake Lobe Axial Position Signal (1)	I	—

B338B Intake Camshaft Profile Sleeve Position Sensor 2 (L3B)



4581126

Connector Part Information

Harness Type: Engine
OEM Connector: 33358800
Service Connector: 19366844
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

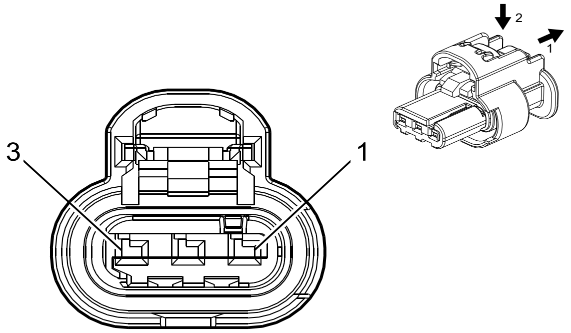
B338B Intake Camshaft Profile Sleeve Position Sensor 2 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—

B338B Intake Camshaft Profile Sleeve Position Sensor 2 (L3B) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—
3	0.5	VT/GN	3745	Camshaft Intake Lobe Axial Position Signal (2)	I	—

B339A Exhaust Camshaft Profile Sleeve Position Sensor 1 (L3B)



4581126

Connector Part Information

Harness Type: Engine
OEM Connector: 33358800
Service Connector: 19366844
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

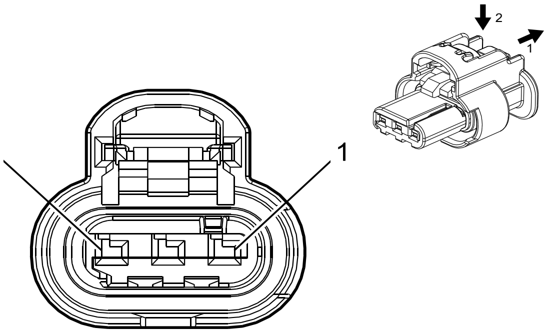
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B339A Exhaust Camshaft Profile Sleeve Position Sensor 1 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—
2	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—
3	0.5	YE/WH	3746	Camshaft Exhaust Lobe Axial Position Signal (1)	I	—

B339B Exhaust Camshaft Profile Sleeve Position Sensor 2 (L3B)



4581126

Connector Part Information

Harness Type: Engine
OEM Connector: 33358800
Service Connector: 19366844
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

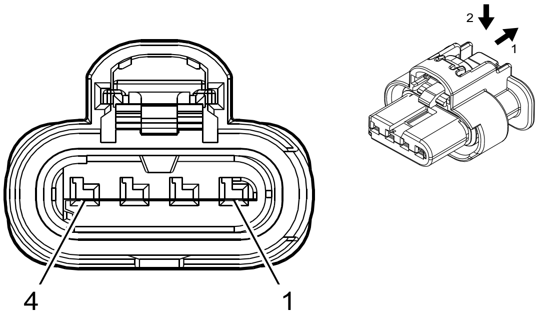
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B339B Exhaust Camshaft Profile Sleeve Position Sensor 2 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—
2	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—
3	0.5	YE/GN	3747	Camshaft Exhaust Lobe Axial Position Signal (2)	I	—

B342A UHF Low Energy Remote Control Access Sensor Transceiver 1 (BOP)



4973942

Connector Part Information

Harness Type: Body
OEM Connector: 35075013

Service Connector: 19370713
Description: 4-Way F 1.2 MCON-CB Series, Sealed (GY)

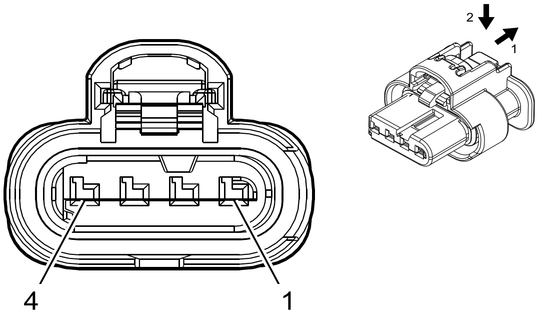
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B342A UHF Low Energy Remote Control Access Sensor Transceiver 1 (BOP)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/BK	2738	Virtual Key Module Local Interconnect Network 1	I	—
2	0.5	RD/YE	2340	Battery Positive Voltage	I	—
3	0.5	BK/WH	1151	Signal Ground	I	—
4	—	—	—	Not Occupied	—	—

B342B UHF Low Energy Remote Control Access Sensor Transceiver 2 (BOP)



4900699

Connector Part Information

Harness Type: Chassis
OEM Connector: 35151760
Service Connector: 84769084
Description: 4-Way F 1.2 MCON-CB Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

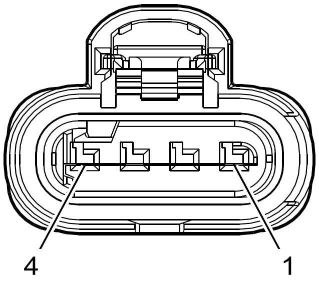
B342B UHF Low Energy Remote Control Access Sensor Transceiver 2 (BOP)

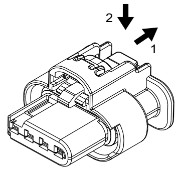
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/BK	2738	Virtual Key Module Local Interconnect Network 1	I	—
2	0.5	RD/YE	2340	Battery Positive Voltage	I	—

B342B UHF Low Energy Remote Control Access Sensor Transceiver 2 (BOP) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	0.5	BK/WH	1751	Signal Ground	I	—
4	—	—	—	Not Occupied	—	—

B342C UHF Low Energy Remote Control Access Sensor Transceiver 3 (BOP)





4210809

Connector Part Information

Harness Type: Body
OEM Connector: 33390897
Service Connector: 19367009
Description: 4-Way F 1.2 MCON-CB Series, Sealed (BK)

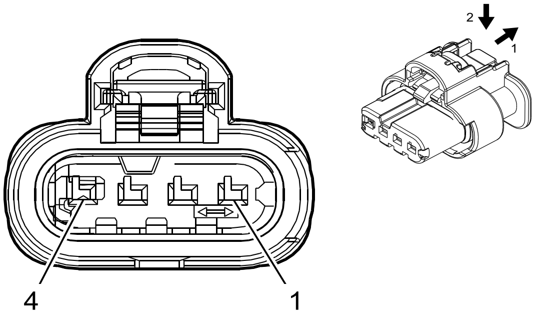
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B342C UHF Low Energy Remote Control Access Sensor Transceiver 3 (BOP)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/BK	2738	Virtual Key Module Local Interconnect Network 1	I	—
2	0.5	RD/YE	2340	Battery Positive Voltage	I	—
3	0.5	BK/WH	1151	Signal Ground	I	—
4	—	—	—	Not Occupied	—	—

B342D UHF Low Energy Remote Control Access Sensor Transceiver 4 (BOP)



4934614

Connector Part Information

Harness Type: Chassis
OEM Connector: 33367416
Service Connector: 19371196
Description: 4-Way F 1.2 MCON-CB Series, Sealed (BK)

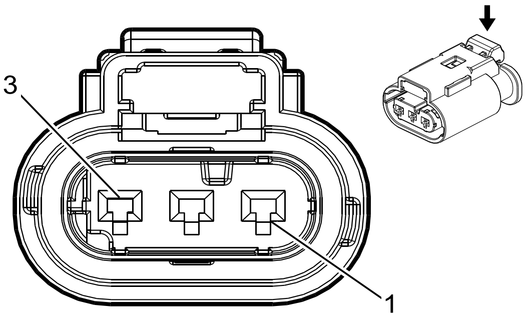
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B342D UHF Low Energy Remote Control Access Sensor Transceiver 4 (BOP)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/BK	2738	Virtual Key Module Local Interconnect Network 1	I	—
2	0.5	RD/YE	2340	Battery Positive Voltage	I	—
3	0.5	BK/WH	1751	Signal Ground	I	—
4	—	—	—	Not Occupied	—	—

B345R Exhaust Pressure Differential Sensor - Exhaust Gas Recirculation (LM2)



2687961

Connector Part Information

Harness Type: Engine
OEM Connector: 13863839
Service Connector: 13422451
Description: 3-Way F 1.2 Multilock Series, Sealed (NA)

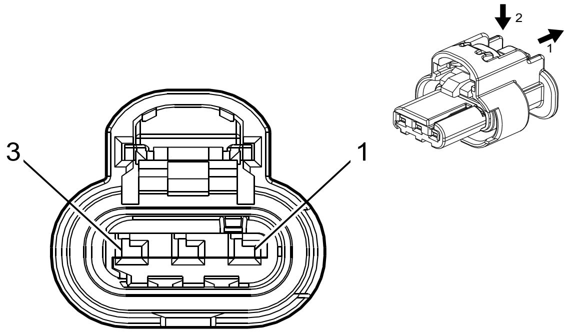
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B345R Exhaust Pressure Differential Sensor - Exhaust Gas Recirculation (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—
2	0.5	VT/GY	7246	Exhaust Gas Recirculation Differential Pressure Signal	I	—
3	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—

E6 Center High Mounted Stop Lamp (Extended Cab/Crew Cab)



4581126

Connector Part Information

Harness Type: Center High Mounted Stop Lamp
OEM Connector: 33358800
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

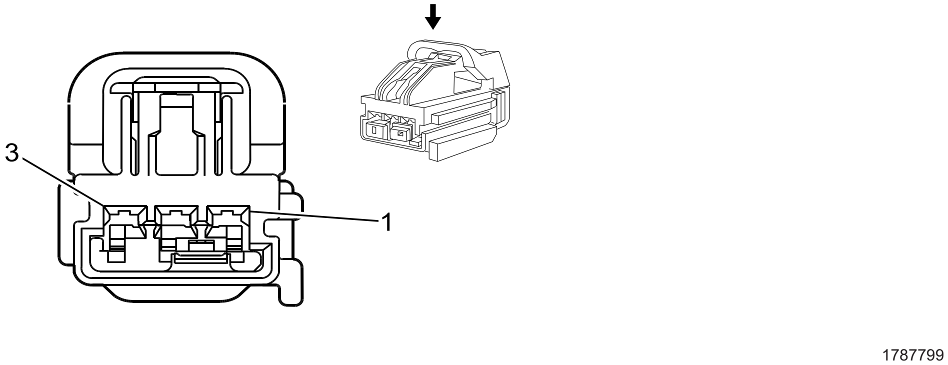
E6 Center High Mounted Stop Lamp (Extended Cab/Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/VT	1430	Exterior Courtesy Lamp Control	I	—

E6 Center High Mounted Stop Lamp (Extended Cab/Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.35	VT/WH	5065	Stop Lamp Relay Coil Control	I	—
3	0.35	BK	1050	Ground	I	—

E6 Center High Mounted Stop Lamp (Regular Cab)



Connector Part Information

Harness Type: Headliner
OEM Connector: 10847008
Service Connector: 19149536
Description: 3-Way F 1.5 Kaizen Series (L-GY)

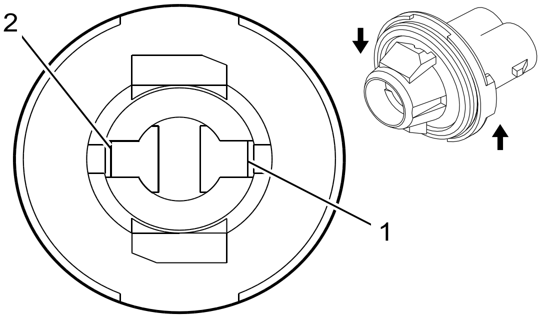
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E6 Center High Mounted Stop Lamp (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/VT	1430	Exterior Courtesy Lamp Control	I	—
2	0.5	VT/GY	1054	Stop Lamp Control	I	—
3	0.35	BK	1050	Ground	I	—

E7L License Plate Lamp - Left (E63)



5153536

Connector Part Information

Harness Type: Rear Bumper
OEM Connector: 15324946
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Lamp Socket Wedge Base, Type W-2 (D-GY)

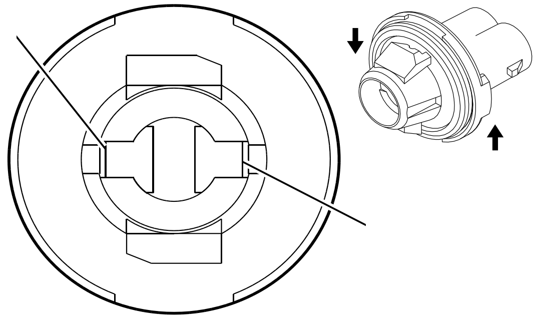
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E7L License Plate Lamp - Left (E63)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/YE	6846	Rear License Lamp Control	I	—
2	0.5	BK	1450	Ground	I	—

E7R License Plate Lamp - Right (E63)



5153536

Connector Part Information

Harness Type: Rear Bumper
OEM Connector: 15324946
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Lamp Socket Wedge Base, Type W-2 (D-GY)

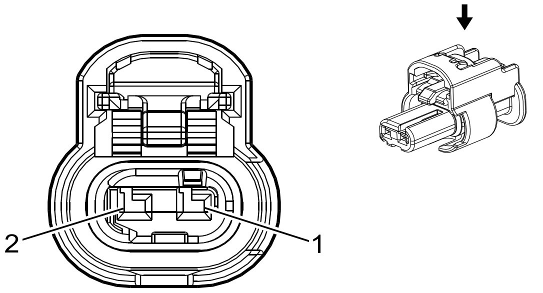
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E7R License Plate Lamp - Right (E63)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/YE	6846	Rear License Lamp Control	I	—
2	0.5	BK	1450	Ground	I	—

E8L Liftgate Courtesy Lamp (QT5/QT6)



4649903

Connector Part Information

Harness Type: Endgate
OEM Connector: 33327048
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

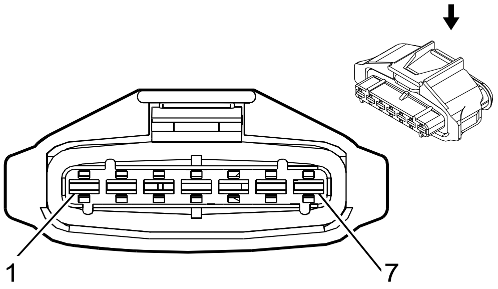
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E8L Liftgate Courtesy Lamp (QT5/QT6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/VT	1430	Exterior Courtesy Lamp Control	I	—
2	0.75	BK	1450	Ground	I	—

E11A Fuel Heater/Water in Fuel Sensor (LM2)



2537256

Connector Part Information

Harness Type: Chassis
OEM Connector: 10774827
Service Connector: 19354080
Description: 7-Way F 2.8 Junior Power Timer Series, Sealed (BK)

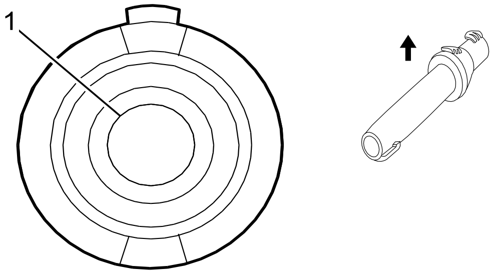
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E11A Fuel Heater/Water in Fuel Sensor (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1750	Ground	I	—
2	2.5	VT/GN	355	Fuel Filter Heater Voltage	I	—
3	0.5	WH/RD	6862	Water In Fuel Sensor 5V Reference	I	—
4	0.5	BK/BU	6863	Water In Fuel Sensor Low Reference	I	—
5	0.5	BU/YE	6861	Water In Fuel Sensor Signal	I	—
6	0.5	BN/VT	455	Fuel Filter Temperature Signal	I	—
7	0.5	BK/VT	412	Fuel Filter Temperature Sensor Low Reference	I	—

E12A Glow Plug 1 (LM2)



Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 284818-1
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F 4.0 Series (BK)

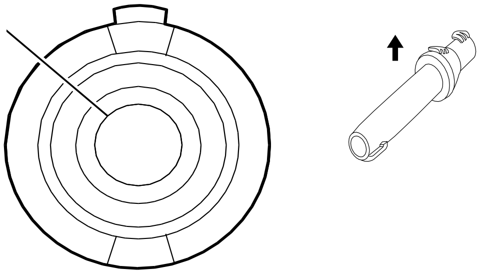
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12A Glow Plug 1 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY/RD	1581	Glow Plug Control 1	I	—

E12B Glow Plug 2 (LM2)



Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 284818-1
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F 4.0 Series (BK)

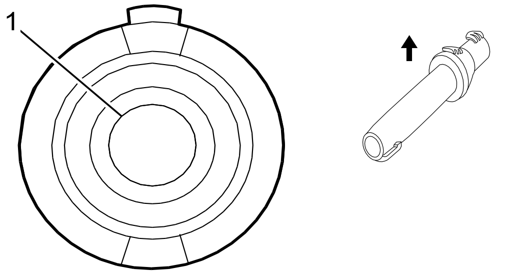
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12B Glow Plug 2 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY/BK	1582	Glow Plug Control 2	I	—

E12C Glow Plug 3 (LM2)



2231591

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 284818-1
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F 4.0 Series (BK)

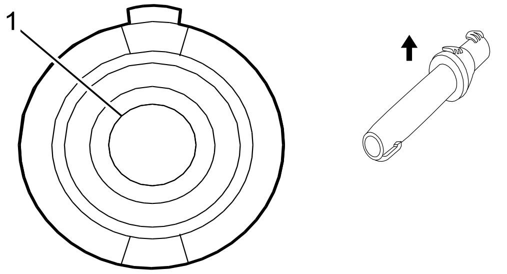
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12C Glow Plug 3 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY/GN	1583	Glow Plug Control 3	I	—

E12D Glow Plug 4 (LM2)



2231591

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 284818-1
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F 4.0 Series (BK)

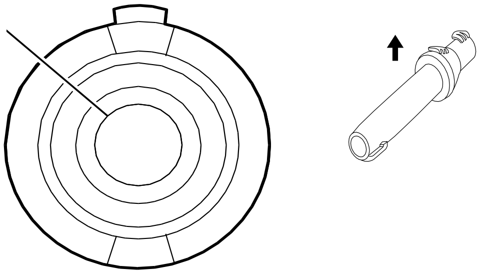
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12D Glow Plug 4 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY/YE	1584	Glow Plug Control 4	I	—

E12E Glow Plug 5 (LM2)



2231591

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 284818-1
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F 4.0 Series (BK)

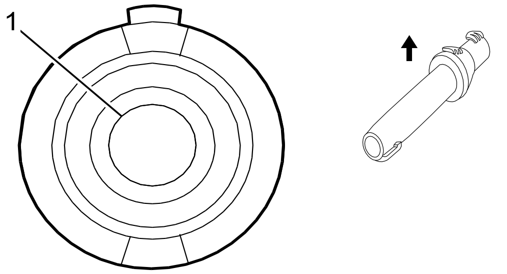
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12E Glow Plug 5 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY/WH	1585	Glow Plug Control 5	I	—

E12F Glow Plug 6 (LM2)



2231591

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 284818-1
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F 4.0 Series (BK)

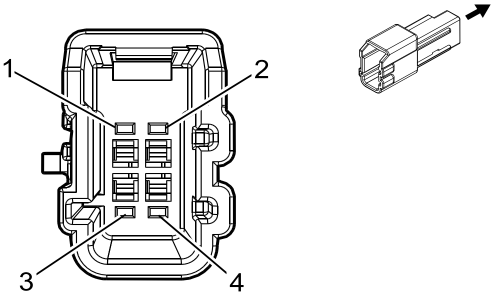
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12F Glow Plug 6 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY	1586	Glow Plug Control 6	I	—

E14A Seat Heating Element - Driver Back (KA1)



4293695

Connector Part Information

Harness Type: Driver Seat

OEM Connector: 6098-7781

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way M 1.2 Series (GY)

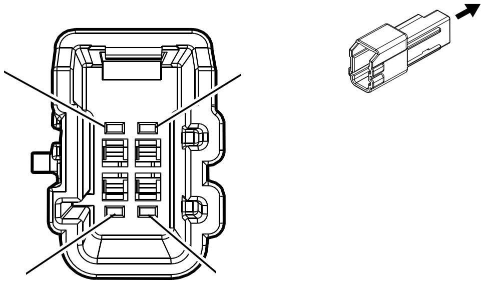
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E14A Seat Heating Element - Driver Back (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN	2432	Driver Heated Back Element Control	I	—
2	0.5	BU	2425	Driver Heated Back NTC Signal	I	—
3	0.5	BK/VT	2426	Driver Heated Back NTC Low Reference	I	—
4	0.75	BN/BK	2078	Driver Heated Seat Element Low Reference	I	—

E14B Seat Heating Element - Driver Cushion (KA1)



4293695

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 6098-7781
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (GY)

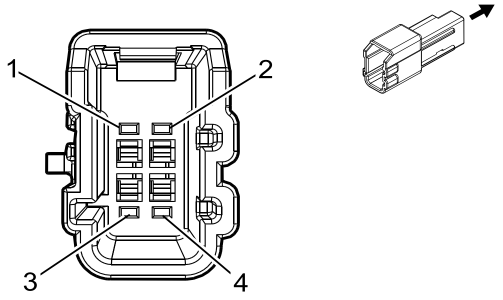
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E14B Seat Heating Element - Driver Cushion (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/WH	4939	Run/Crank Ignition 1 Voltage	I	—
2	0.5	GN/VT	5906	Driver Seat Vent Motor Control 1	I	—
3	0.75	BK	1150	Ground	I	—
4	—	—	—	Not Occupied	—	—

E14C Seat Heating Element - Passenger Back (KA1)



4293695

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 6098-7781
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (GY)

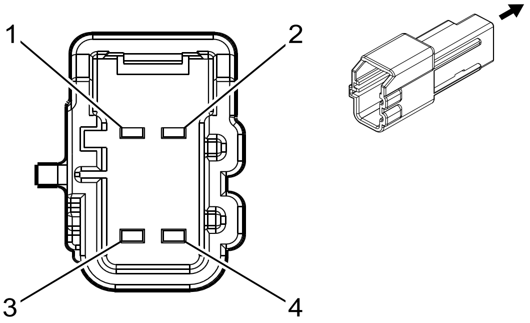
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E14C Seat Heating Element - Passenger Back (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/BN	2481	Passenger Heated Back Element Control	I	—
2	0.5	WH/BU	2436	Passenger Heated Back NTC Signal	I	—
3	0.5	BK/GN	2482	Passenger Heated Back NTC Low Reference	I	—
4	0.75	GY/BK	2480	Passenger Heated Seat Element Low Reference	I	—

E14D Seat Heating Element - Passenger Cushion (KA1)



4210503

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 6098-7779
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (BK)

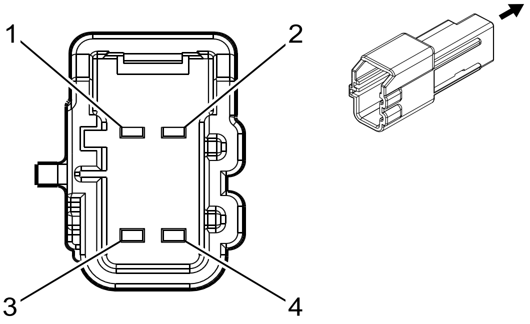
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E14D Seat Heating Element - Passenger Cushion (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/BU	2479	Passenger Heated Seat Element Control	I	—
2	0.5	WH/GY	2434	Passenger Heated Seat NTC Signal	I	—
3	0.5	BK/GY	2435	Passenger Heated Seat NTC Low Reference	I	—
4	0.75	GY/BK	2480	Passenger Heated Seat Element Low Reference	I	—

E14F Seat Heating Element - Left Rear Cushion (KA6)



4210503

Connector Part Information

Harness Type: Left Rear Seat
OEM Connector: 6098-7779
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (BK)

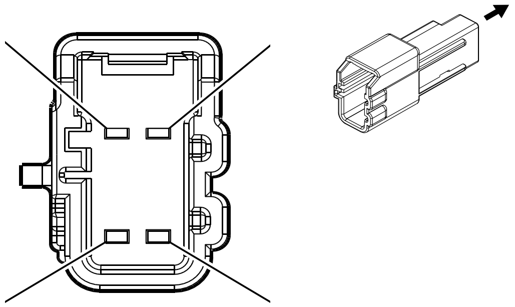
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E14F Seat Heating Element - Left Rear Cushion (KA6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY	2294	Left Rear Heated Seat Cushion Element Control	I	—
2	0.75	WH/BU	7047	Left Rear Cushion NTC Signal	I	—
3	0.75	BU/WH	7048	Left Rear Cushion NTC Low Reference	I	—
4	0.75	BN/BK	2295	Left Rear Heated Seat Cushion Element Low Reference	I	—

E14H Seat Heating Element - Right Rear Cushion (KA6)



4210503

Connector Part Information

Harness Type: Left Rear Seat
OEM Connector: 6098-7779
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (BK)

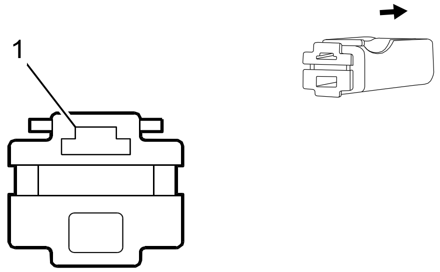
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-13 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E14H Seat Heating Element - Right Rear Cushion (KA6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN/BN	2296	Right Rear Heated Seat Cushion Element Control	I	—
2	0.75	YE/WH	7053	Right Rear Cushion NTC Signal	I	—
3	0.75	WH/BK	7054	Right Rear Cushion NTC Low Reference	I	—
4	0.75	GN/BK	2297	Right Rear Heated Seat Cushion Element Low Reference	I	—

E18 Rear Defogger Grid X1



1413086

Connector Part Information

Harness Type: Body
OEM Connector: 13511619
Service Connector: 19367647
Description: 1-Way F 250 Series (BK)

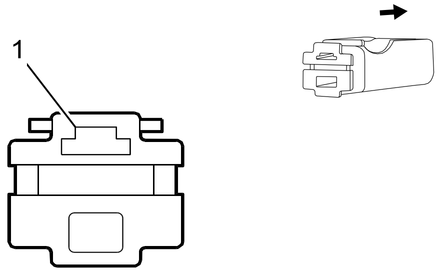
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E18 Rear Defogger Grid X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BN/VT	293	Rear Defog Element Control	I	—

E18 Rear Defogger Grid X2



1413086

Connector Part Information

Harness Type: Body
OEM Connector: 13511619
Service Connector: 19367647
Description: 1-Way F 250 Series (BK)

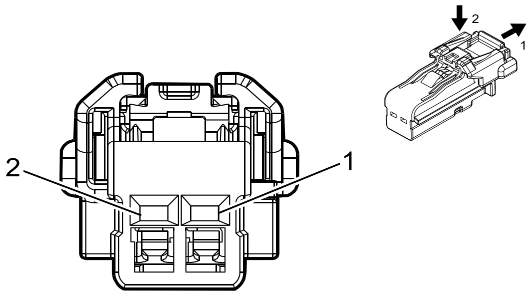
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E18 Rear Defogger Grid X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1350	Ground	I	—

E28 Center Console Compartment Lamp (D07)



4115691

Connector Part Information

Harness Type: Floor Console
OEM Connector: 35026312
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Series (BK)

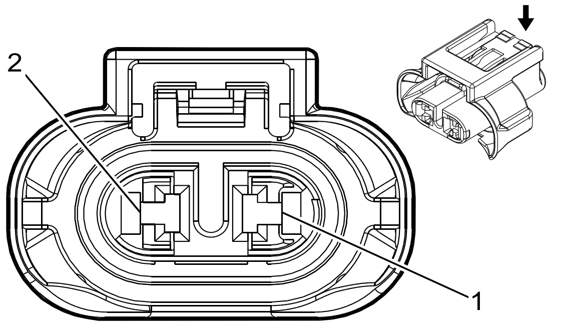
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E28 Center Console Compartment Lamp (D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1250	Ground	I	—
2	0.5	WH/BN	6815	Inadvertent Power Control	I	—

E29LF Fog Lamp - Left Front (T3U)



3404058

Connector Part Information

Harness Type: Front Bumper
OEM Connector: 13818129
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

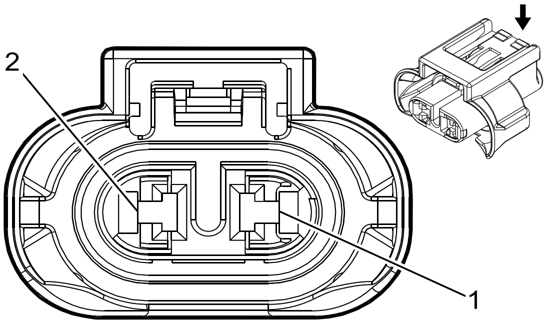
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E29LF Fog Lamp - Left Front (T3U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/VT	2234	Front Fog Lamp Control	I	—
2	0.5	BK	150	Ground	I	—

E29RF Fog Lamp - Right Front (T3U)



3404058

Connector Part Information

Harness Type: Front Bumper
OEM Connector: 13818129
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

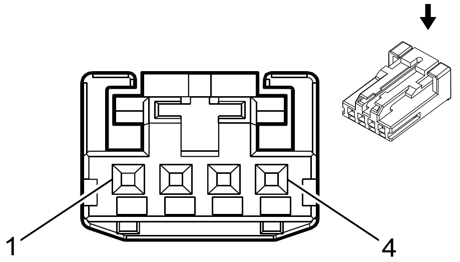
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E29RF Fog Lamp - Right Front (T3U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/VT	2234	Front Fog Lamp Control	I	—
2	0.5	BK	250	Ground	I	—

E37B Dome/Reading Lamps - 2nd Row (Extended Cab/Crew Cab)



2717162

Connector Part Information

Harness Type: Headliner
OEM Connector: 13969166
Service Connector: 13587297
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

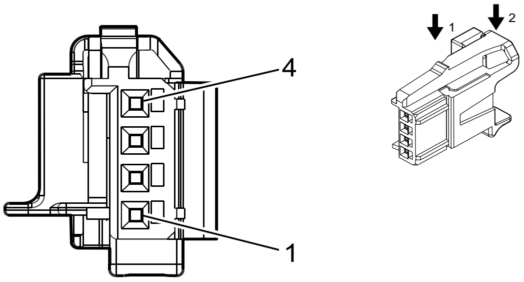
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E37B Dome/Reading Lamps - 2nd Row (Extended Cab/Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/YE	240	Battery Positive Voltage	I	—
2	0.35	GY	157	Interior Lamp Control	I	—
3	0.5	BK	1050	Ground	I	—
4	0.5	WH/BN	6815	Inadvertent Power Control	I	—

E40 Electrical Auxiliary Heater X2 (C32)



5191926

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33358011
Service Connector: 84724190
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

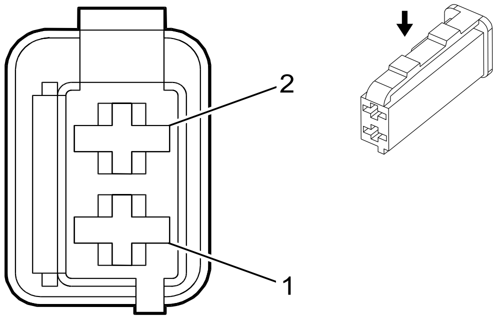
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E40 Electrical Auxiliary Heater X2 (C32)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT	3195	Auxiliary Heater Control	I	—
2	0.5	VT/GY	539	Run/Crank Ignition 1 Voltage	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	BK	1050	Ground	I	—

E63D Flood Lamp - Driver Door Handle (AU3)



2339593

Connector Part Information

Harness Type: Driver Door Trim
OEM Connector: 13670097
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.6 Timer Series (BK)

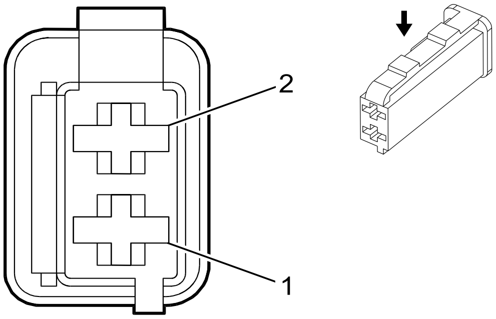
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E63D Flood Lamp - Driver Door Handle (AU3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	—
2	0.35	BK	1150	Ground	I	—

E63P Flood Lamp - Passenger Door Handle (AU3)



2339593

Connector Part Information

Harness Type: Passenger Door Trim
OEM Connector: 13670097
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.6 Timer Series (BK)

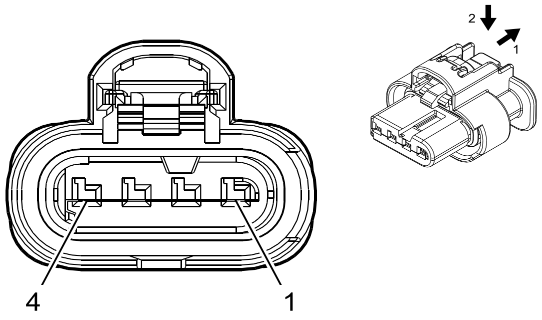
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E63P Flood Lamp - Passenger Door Handle (AU3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/YE	7557	LED Ambient Lighting Control 1	I	—
2	0.75	BK	1250	Ground	I	—

F101 Passenger Instrument Panel Air Bag



4900699

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35053710
Service Connector: 19371193
Description: 4-Way F 1.2 MCON-CB Series, Sealed (YE)

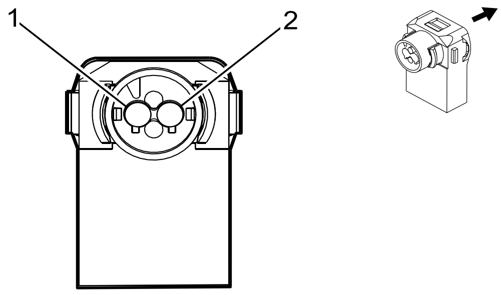
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F101 Passenger Instrument Panel Air Bag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/OG	3025	Passenger IP Module Stage 1 High Control	I	—
2	0.35	OG/WH	3024	Passenger IP Module Stage 1 Low Control	I	—
3	0.35	GY/OG	3027	Passenger IP Module Stage 2 High Control	I	—
4	0.35	OG/VT	3026	Passenger IP Module Stage 2 Low Control	I	—

F105L Roof Rail Air Bag - Left



4679778

Connector Part Information

Harness Type: Body
OEM Connector: 33345783
Service Connector: 19355491
Description: 2-Way F ABX-5 Series (GY with YE Cover)

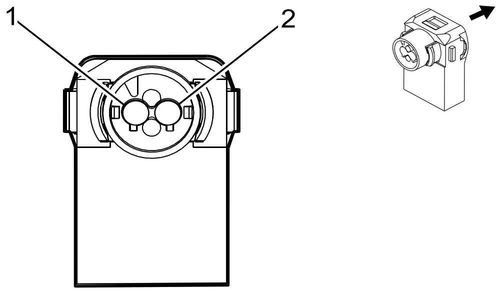
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F105L Roof Rail Air Bag - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/GN	5019	Left Front Head Curtain Module High Control	I	—
2	0.5	VT/OG	5020	Left Front Head Curtain Module Low Control	I	—

F105R Roof Rail Air Bag - Right (Extended Cab)



4679778

Connector Part Information

Harness Type: Body
OEM Connector: 33345783
Service Connector: 19355491
Description: 2-Way F ABX-5 Series (GY with YE Cover)

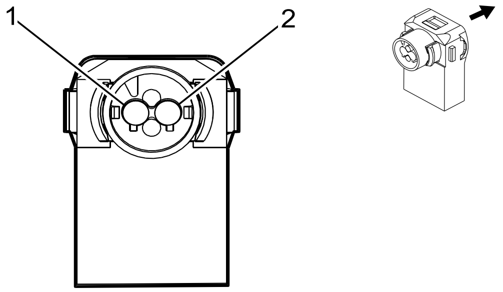
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F105R Roof Rail Air Bag - Right (Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/GY	5021	Right Front Head Curtain Module High Control	I	—
2	0.5	WH/OG	5022	Right Front Head Curtain Module Low Control	I	—

F105R Roof Rail Air Bag - Right (Regular Cab)



4679778

Connector Part Information

Harness Type: Body
OEM Connector: 33345773
Service Connector: 19355491
Description: 2-Way F ABX-5 Series (GY with YE Cover)

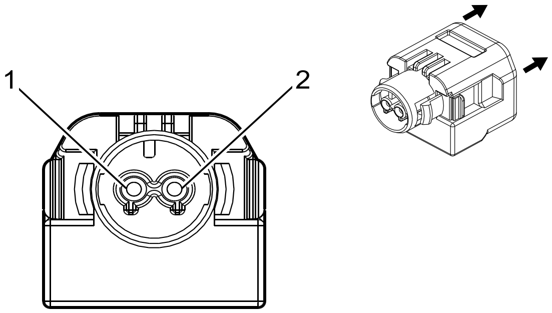
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F105R Roof Rail Air Bag - Right (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/GY	5021	Right Front Head Curtain Module High Control	I	—
2	0.5	WH/OG	5022	Right Front Head Curtain Module Low Control	I	—

F106D Seat Side Air Bag - Driver (A2S)



4772226

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 1-1802367-1

Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.0 Series (PK with YE Cover)

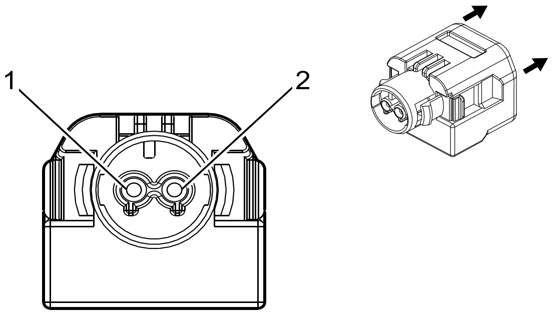
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

F106D Seat Side Air Bag - Driver (A2S)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/BU	3068	Driver Side Impact Module High Control	I	—
2	0.5	BK/OG	3069	Driver Side Impact Module Low Control	I	—

F106D Seat Side Air Bag - Driver (A2X)



4772226

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 1801935-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.0 Series (PK with YE Cover)

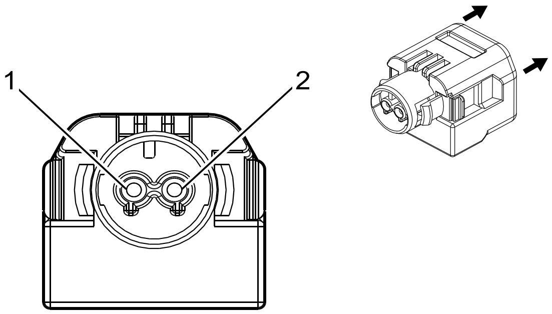
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

F106D Seat Side Air Bag - Driver (A2X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/BU	3068	Driver Side Impact Module High Control	I	—
2	0.5	BK/OG	3069	Driver Side Impact Module Low Control	I	—

F106P Seat Side Air Bag - Passenger



4772226

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 1801935-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.0 Series (PK with YE Cover)

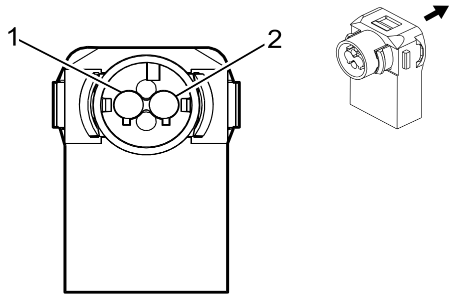
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

F106P Seat Side Air Bag - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/GY	3066	Passenger Side Impact Module High Control	I	—
2	0.5	BU/OG	3067	Passenger Side Impact Module Low Control	I	—

F112D Seat Belt Retractor Pretensioner - Driver (Extended Cab)



4241364

Connector Part Information

Harness Type: Body
OEM Connector: 33345778
Service Connector: 19355490
Description: 2-Way F ABX-5 Series (PU with YE Cover)

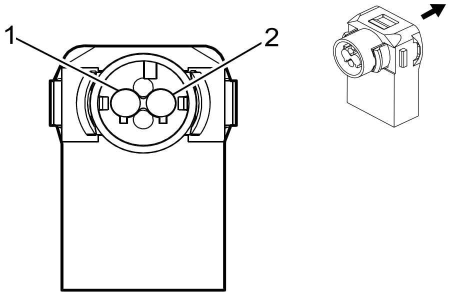
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F112D Seat Belt Retractor Pretensioner - Driver (Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/WH	3477	Driver Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	GY/OG	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	—

F112D Seat Belt Retractor Pretensioner - Driver (Regular Cab)



4241364

Connector Part Information

Harness Type: Body
OEM Connector: 33345778
Service Connector: 19355490
Description: 2-Way F ABX-5 Series (PU with YE Cover)

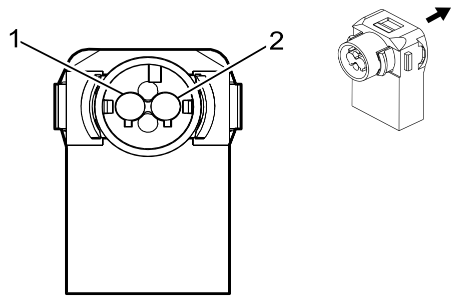
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F112D Seat Belt Retractor Pretensioner - Driver (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/WH	3477	Driver Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	GY/OG	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	—

F112P Seat Belt Retractor Pretensioner - Passenger



4241364

Connector Part Information

Harness Type: Body
OEM Connector: 33345778
Service Connector: 19355490
Description: 2-Way F ABX-5 Series (PU with YE Cover)

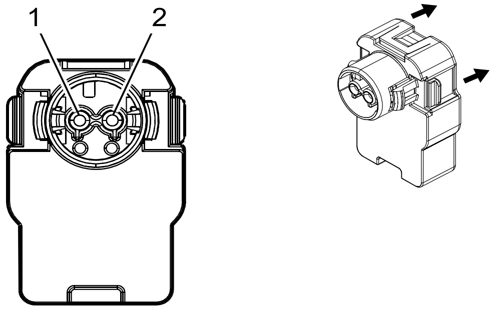
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F112P Seat Belt Retractor Pretensioner - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	WH/OG	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	—

F113D Seat Belt Anchor Pretensioner - Driver (Crew Cab)



4823732

Connector Part Information

Harness Type: Body
OEM Connector: 1-1801930-1

Service Connector: 13598467
Description: 2-Way F 1.0 Series (PK with YE Cover)

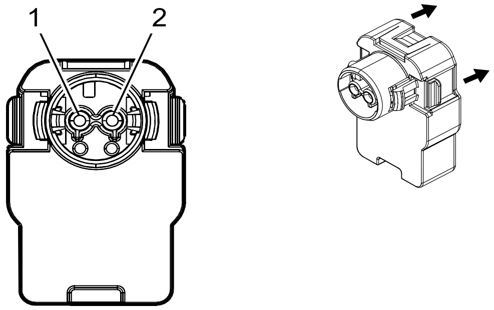
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F113D Seat Belt Anchor Pretensioner - Driver (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	—
2	0.5	YE/OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	—

F113D Seat Belt Anchor Pretensioner - Driver (Extended Cab)



4823732

Connector Part Information

Harness Type: Body
OEM Connector: 1-1801930-1
Service Connector: 13598467
Description: 2-Way F 1.0 Series (PK with YE Cover)

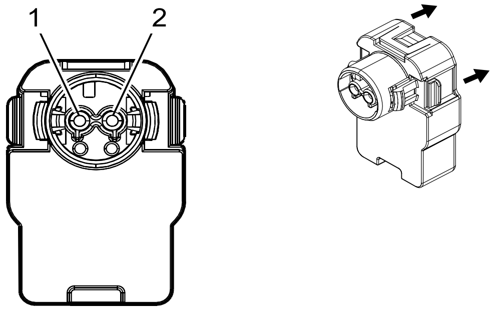
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F113D Seat Belt Anchor Pretensioner - Driver (Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	—
2	0.5	YE/OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	—

F113D Seat Belt Anchor Pretensioner - Driver (Regular Cab)



4823732

Connector Part Information

Harness Type: Body
OEM Connector: 1-1801930-1
Service Connector: 13598467
Description: 2-Way F 1.0 Series (PK with YE Cover)

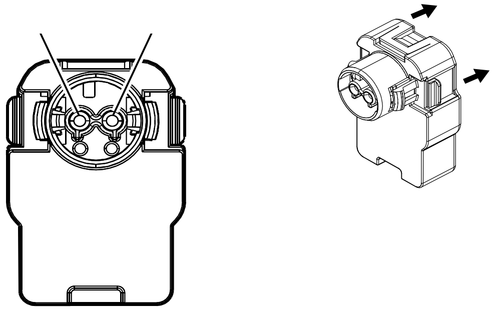
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F113D Seat Belt Anchor Pretensioner - Driver (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	—
2	0.5	YE/OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	—

F113P Seat Belt Anchor Pretensioner - Passenger (Crew Cab)



4823732

Connector Part Information

Harness Type: Body
OEM Connector: 1-1801930-1
Service Connector: 13598467
Description: 2-Way F 1.0 Series (PK with YE Cover)

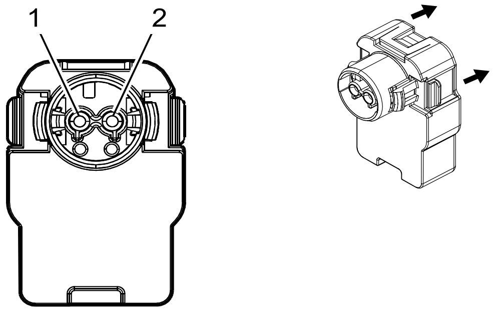
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F113P Seat Belt Anchor Pretensioner - Passenger (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	—
2	0.5	GY/OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	—

F113P Seat Belt Anchor Pretensioner - Passenger (Extended Cab)



4823732

Connector Part Information

Harness Type: Body
OEM Connector: 1-1801930-1
Service Connector: 13598467
Description: 2-Way F 1.0 Series (PK with YE Cover)

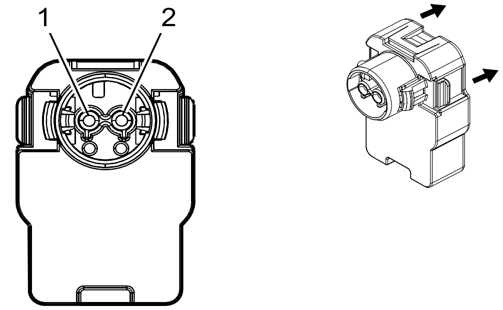
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F113P Seat Belt Anchor Pretensioner - Passenger (Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	—
2	0.5	GY/OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	—

F113P Seat Belt Anchor Pretensioner - Passenger (Regular Cab)



4823732

Connector Part Information

Harness Type: Body
OEM Connector: 1-1801930-1
Service Connector: 13598467
Description: 2-Way F 1.0 Series (PK with YE Cover)

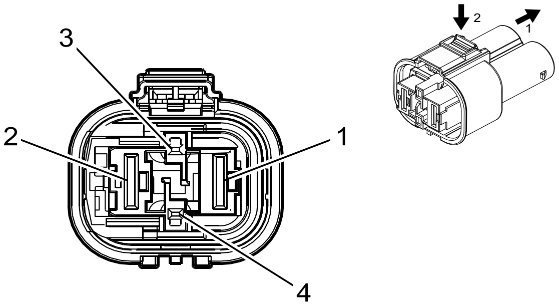
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F113P Seat Belt Anchor Pretensioner - Passenger (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG/BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	—
2	0.5	GY/OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	—

G10B Cooling Fan Motor - Lower (L3B)



4847569

Connector Part Information

Harness Type: Engine
OEM Connector: 33376654
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2, 9.5 MCON Series (BK)

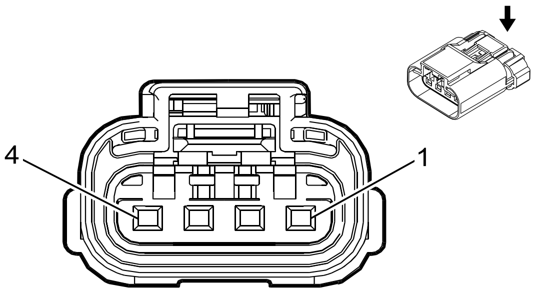
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-22 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G10B Cooling Fan Motor - Lower (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD/VT	842	Battery Positive Voltage	II	—
2	5	BK	4450	Ground	II	—
3	0.5	GN/YE	4623	Local Interconnect Network Serial Data Bus 23	I	—
4	—	—	—	Not Occupied	—	—

G10L Cooling Fan Motor - Left



4732789

Connector Part Information

Harness Type: Engine
OEM Connector: 33234243
Service Connector: 84625007
Description: 4-Way F 2.8 APEX Series, Sealed (BK)

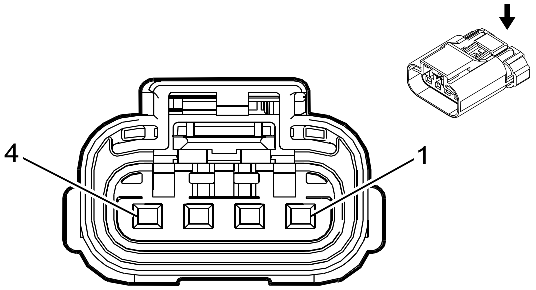
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G10L Cooling Fan Motor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	BK	4450	Ground	III	—
2	5	RD/WH	342	Battery Positive Voltage	III	—
3	—	—	—	Not Occupied	—	—
4	0.5 0.75 0.75	BN/YE GN/VT BN/YE	473 4621 473	High Speed Cooling Fan Relay Control Local Interconnect Network Serial Data Bus 21 High Speed Cooling Fan Relay Control	II II I	L3B L82/L84/L87 LM2

G10R Cooling Fan Motor - Right (L3B/L82/L84/L87/LV3)



4732789

Connector Part Information

Harness Type: Engine
OEM Connector: 33234243
Service Connector: 84625007
Description: 4-Way F 2.8 APEX Series, Sealed (BK)

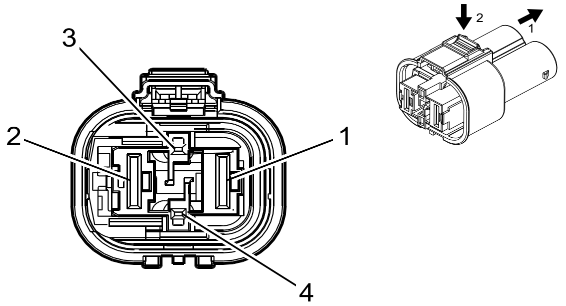
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G10R Cooling Fan Motor - Right (L3B/L82/L84/L87/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	BK	4450	Ground	II	—
2	5	RD/GY	642	Battery Positive Voltage	II	—
3	—	—	—	Not Occupied	—	—
4	0.75 0.75 0.5	GN/VT GN/VT BN/YE	4621 4621 473	Local Interconnect Network Serial Data Bus 21 Local Interconnect Network Serial Data Bus 21 High Speed Cooling Fan Relay Control	I I I	— L82/L84/L87 LM2

G10R Cooling Fan Motor - Right (LM2)



5187743

Connector Part Information

Harness Type: Engine
OEM Connector: 35194180
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2, 9.5 MCON Series (GY)

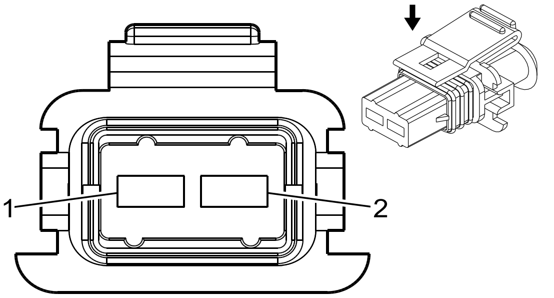
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-22 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G10R Cooling Fan Motor - Right (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	10	RD	642	Battery Positive Voltage	II	—
2	8	BK	4450	Ground	II	—
3	0.5	BN/YE	473	High Speed Cooling Fan Relay Control	I	—
4	—	—	—	Not Occupied	—	—

G13 Generator X1 (VYU)



1522871

Connector Part Information

Harness Type: Snow Plow Jumper
OEM Connector: 12186308
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Junior Power Timer Series, Sealed (BK)

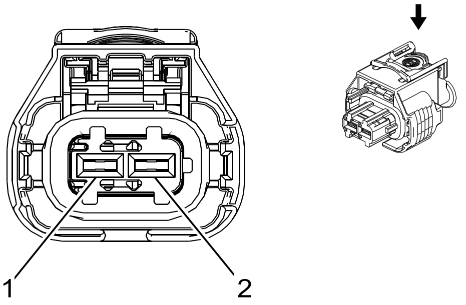
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X1 (VYU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	9025	—	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X1 (-VYU)



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

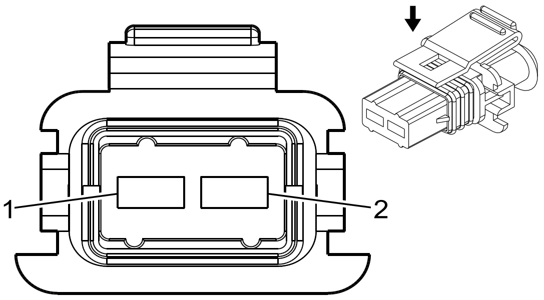
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X1 (-VYU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	25	Charge Indicator Control	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13E Generator - Auxiliary X1 (VYU)



1522871

Connector Part Information

Harness Type: Snow Plow Jumper
OEM Connector: 12186308
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Junior Power Timer Series, Sealed (BK)

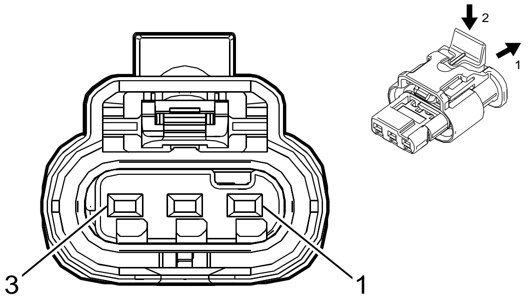
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13E Generator - Auxiliary X1 (VYU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	9025	—	I	—
2	—	—	—	Not Occupied	—	—

G17 Heater Coolant Pump (L84/L87/LM2)



4249125

Connector Part Information

Harness Type: Engine
OEM Connector: 33176362
Service Connector: 19366844
Description: 3-Way F 1.2 MCP Series, Sealed (BN)

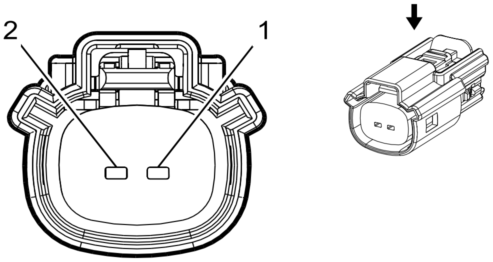
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G17 Heater Coolant Pump (L84/L87/LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	4450	Ground	I	—
	1	BK	4450	Ground	I	—
2	0.5	YE/BU	5126	After Boil Heater Pump Control	I	—
3	0.5	GN/BN	2732	Local Interconnect Network Bus 32	I	—

G18 High Pressure Fuel Pump (L3B)



2474713

Connector Part Information

Harness Type: Engine
OEM Connector: 13782480
Service Connector: 13577534
Description: 2-Way F 150 MX Series, Sealed (BK)

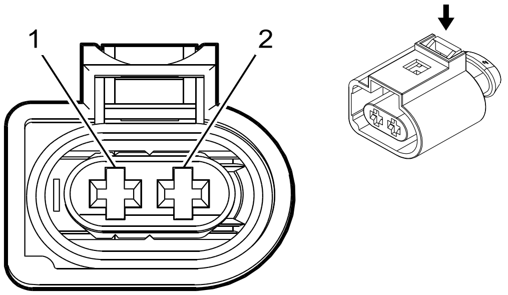
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G18 High Pressure Fuel Pump (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	I	—
2	0.75	YE	7301	High Pressure Fuel Pump Actuator High - Control	I	—

G24 Windshield Washer Pump (Crew Cab)



2474738

Connector Part Information

Harness Type: Body
OEM Connector: 10863916

Service Connector: 19368727
Description: 2-Way F 2.8 MDK5 Series, Sealed (BK)

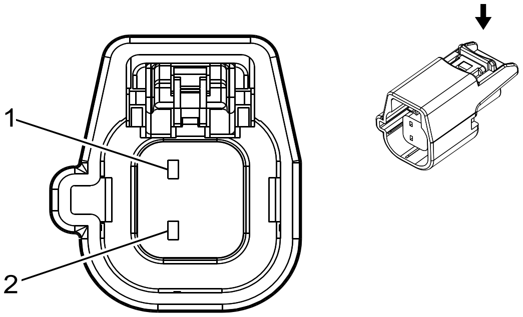
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G24 Windshield Washer Pump (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/VT	228	Windshield Washer Pump Control	I	—
2	0.5	BK	150	Ground	I	—

G24 Windshield Washer Pump (Extended Cab)



3958652

Connector Part Information

Harness Type: Body
OEM Connector: 33113086
Service Connector: 13593220
Description: 2-Way F 1.5 Series (L-GY)

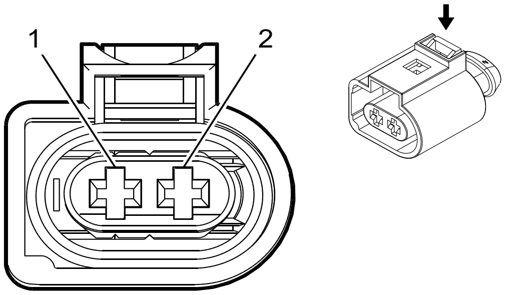
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G24 Windshield Washer Pump (Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT	185	Low Washer Fluid Indicator Control	I	—
2	0.75	BK	150	Ground	I	—

G24 Windshield Washer Pump (Regular Cab)



2474738

Connector Part Information

Harness Type: Body
OEM Connector: 10863916
Service Connector: 19368727
Description: 2-Way F 2.8 MDK5 Series, Sealed (BK)

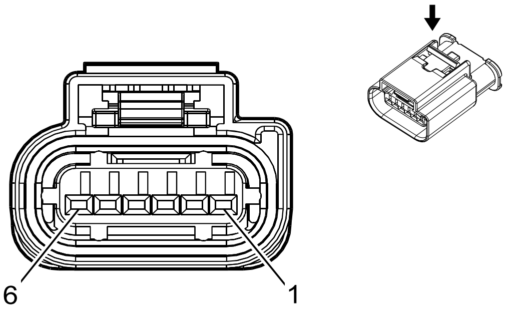
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G24 Windshield Washer Pump (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/VT	228	Windshield Washer Pump Control	I	—
2	0.5	BK	150	Ground	I	—

G58 Evaporative Emission Purge Pump (L3B)



3747579

Connector Part Information

Harness Type: Engine
OEM Connector: 33225994
Service Connector: 19354437
Description: 6-Way F 1.2 MCON Series, Sealed (BK)

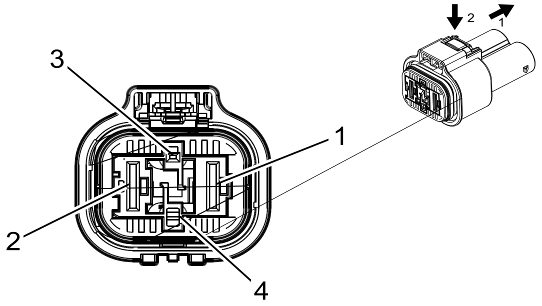
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G58 Evaporative Emission Purge Pump (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/BU	2447	Evaporative Purge Pump Pressure Signal	I	—
2	0.75	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
3	0.75	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
4	0.5	GN/BN	2732	Local Interconnect Network Bus 32	I	—
5	0.5	BK	4450	Ground	I	—
6	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—

G59 Engine Coolant Pump (L3B)



4994735

Connector Part Information

Harness Type: Engine
OEM Connector: 33368755
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2, 9.5 MCON Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-22 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

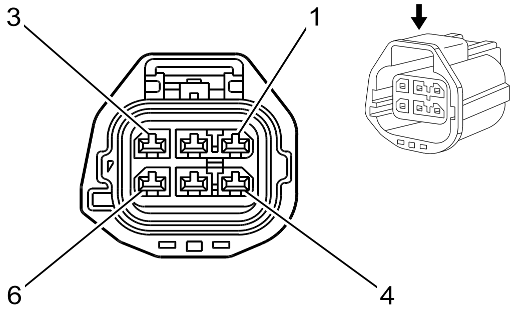
G59 Engine Coolant Pump (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	10	RD/BN	440	Battery Positive Voltage	II	—
2	10	BK	4450	Ground	II	—

G59 Engine Coolant Pump (L3B) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	0.5	GN/BN	2732	Local Interconnect Network Bus 32	I	—
4	—	—	—	Not Occupied	—	—

K4 Assist Step Control Module X1 (BRS)



1420587

Connector Part Information

Harness Type: Chassis
OEM Connector: 33334914
Service Connector: 19368855
Description: 6-Way F 2.8 Series, Sealed (GY)

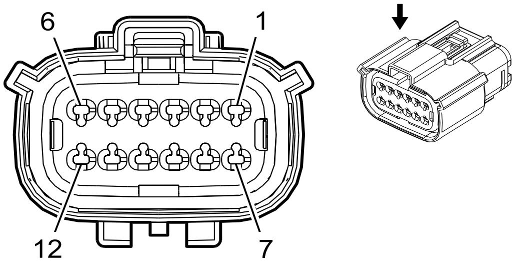
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K4 Assist Step Control Module X1 (BRS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	GN	7469	Articulating Running Boards Motor Right Control Retract	I	—
2	2.5	BK	2150	Ground	I	—
3	2	WH/BN	7471	Articulating Running Boards Motor Left Control Extend	I	—
4	2	BU	7470	Articulating Running Boards Motor Right Control Extend	I	—
5	2.5	RD/YE	1142	Battery Positive Voltage	I	—
6	2	GY	7472	Articulating Running Boards Motor Left Control Retract	I	—

K4 Assist Step Control Module X2 (BRS)



2424960

Connector Part Information

Harness Type: Chassis
OEM Connector: 33297566
Service Connector: 19352907
Description: 12-Way F 150 MX Series, Sealed (BK)

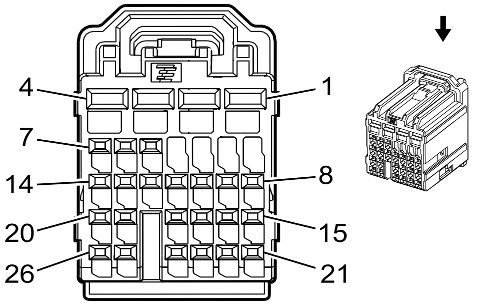
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K4 Assist Step Control Module X2 (BRS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/RD	7468	Running Boards Motor Hall Sensor Left 5V Reference	I	—
2	0.5	GN/RD	7464	Running Boards Motor Hall Sensor Right 5V Reference	I	—
3	0.5	YE	7467	Running Boards Motor Hall Sensor Left Signal	I	—
4	0.5	VT	7465	Running Boards Motor Hall Sensor Right Signal	I	—
5	0.5	YE/BN	7466	Running Boards Motor Hall Sensor Left Low Reference	I	—
6	0.5	YE/BK	7463	Running Boards Motor Hall Sensor Right Low Reference	I	—
7	0.5	BK/BU	685	Articulating Running Board Kick Switch Return	I	—
8	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	BN/WH	7462	Running Boards Disable Signal	I	—
11	0.5	BU/GN	4746	Articulating Running Board Left Kick Switch Signal	I	—
12	0.5	WH	4747	Articulating Running Board Right Kick Switch Signal	I	—

K9 Body Control Module X1



2537268

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13824335
Service Connector: 13576031
Description: 26-Way F 0.64, 2.8 Series (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4443	Sumitomo 22	E	A
II	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4444	Sumitomo 22	2	A
III	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4445	Sumitomo 22	F	D
IV	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

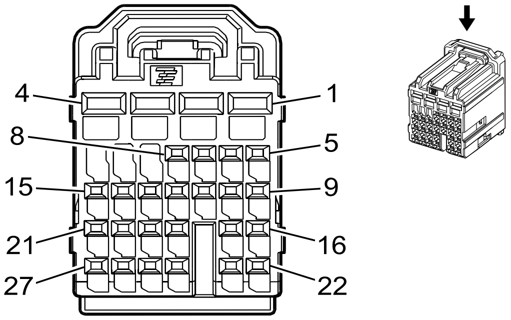
K9 Body Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1850	Ground	III	—
2	1	RD/BU	2540	Battery Positive Voltage	II	—
3	0.5	RD/GY	2140	Battery Positive Voltage	I	—
4	0.75	RD/BN	2240	Battery Positive Voltage	II	—
5	0.5	WH	6816	Indicator Dimming Control	IV	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.35	BN/BK	5720	Ignition Mode Switch Accessory LED Signal	IV	—
9	0.35	WH/BN	7555	Lighting Control Switch Signal	IV	—
10	—	—	—	Not Occupied	—	—
11	0.35	GN/BN	306	Headlamp Switch Headlamps Off Signal Control	IV	—
12	0.35	GN	1111	Auto Stop Start Switch Signal	IV	—
13	0.35	YE	7556	Lighting Control Switch Reference	IV	—
14	0.35	GY/GN	328	Interior Lamp Defeat Switch Signal	IV	—
15	—	—	—	Not Occupied	—	—
16	0.35	WH/VT	103	Headlamp Switch On Signal	IV	—
17	—	—	—	Not Occupied	—	—

K9 Body Control Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
18	0.35	BU/VT	5904	Steering Column Lock Status Signal	IV	—
19	0.35	BK/BN	5360	Brake Apply Sensor Low Reference	IV	—
20	0.35	BU/BK	5719	Ignition Mode Switch Start LED Signal	IV	—
21	0.35	GY	728	Security Indicator Control	IV	—
22	0.35	GN/GY	13	Headlamp Switch Park Lamp Signal	IV	—
23	0.35	GY	157	Interior Lamp Control	IV	—
24	0.35	WH	2501	High Speed GMLAN Serial Data (-) 1	IV	—
25	0.35	BU	2500	High Speed GMLAN Serial Data (+) 1	IV	—
26	0.35	BU/WH	3275	Remote Function Actuator Receive Signal	IV	—

K9 Body Control Module X2



2537269

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13824336
Service Connector: 13576032
Description: 27-Way F 0.64, 2.8 Series (BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4443	Sumitomo 22	E	A
II	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4445	Sumitomo 22	F	D
III	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

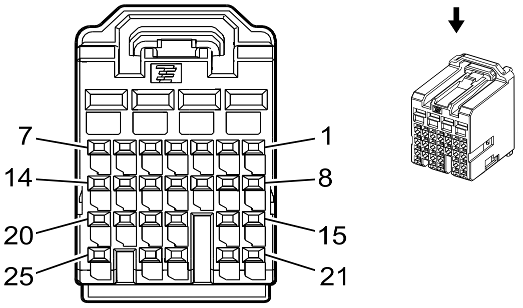
K9 Body Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	2740	Battery Positive Voltage	I	—
2	2.5	BK	1850	Ground	II	—
3	0.5	RD/BN	2940	Battery Positive Voltage	I	—

K9 Body Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
4	2.5	RD/VT	4040	Battery Positive Voltage	II	—
5	0.35	VT/GN	7558	LED Ambient Lighting Control 2	III	—
6	0.35	GN	1110	Auto Stop Start Indicator Control	III	—
7	0.35	BU/YE	5361	Brake Apply Sensor Signal	III	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.35	WH/BU	278	Ambient Light Sensor Signal	III	—
11	0.35	YE/BU	7295	Left Minor Endgate Ajar Signal	III	—
12	0.35	WH/BN	7296	Right Minor Endgate Ajar Signal	III	—
13	0.35	WH	5359	Brake Apply Sensor Control	III	—
14	0.35	BU/VT	1788	Traction Control Switch Signal 1	III	—
15	0.35	GY/WH	4630	AC Power Outlet Switch Signal	III	—
16	0.35	GY	3273	Remote Function Actuator Low Reference	III	—
17	0.35	BU/GN	5723	Ignition Mode Switch Mode Voltage	III	—
18	0.35	GY	158	Cargo Lamp Switch Signal	III	—
19	0.35	WH/GY	2935	Task Lamp Switch Signal	III	—
20	0.5	WH/BU	3691	Trailer Brake Apply Signal	III	—
21	0.5	GN/GY	6135	Local Interconnect Network Serial Data Bus 4	III	—
22	0.35	GN	5060	Low Speed GMLAN Serial Data	III	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.35	GY/WH	3272	Remote Function Actuator Control	III	—
26	0.35	GN/WH	111	Hazard Switch Signal	III	—
27	0.35	YE/GN	3274	Remote Function Actuator Transmit Signal	III	—

K9 Body Control Module X3



2537274

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13824337
Service Connector: 13576037
Description: 25-Way F 0.64, 2.8 Series (GN)

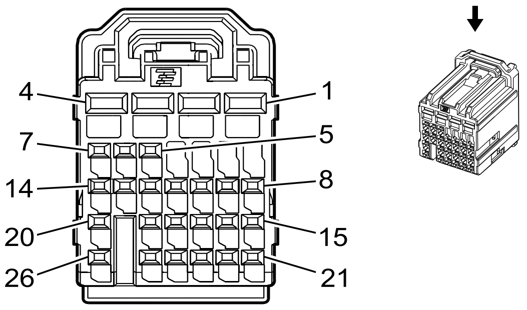
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K9 Body Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35 0.5	GN/GY GN/GY	3277 3277	Vehicle Anti-Theft System Immobilizer Low Reference Vehicle Anti-Theft System Immobilizer Low Reference	I I	BTM -BTM
2	0.35 0.5	GN/VT GN/VT	7533 7533	Local Interconnect Network Serial Data Bus 11 Local Interconnect Network Serial Data Bus 11	I I	BTM -BTM
3	0.35 0.5	GY/BK GY/BK	3276 3276	Vehicle Anti-Theft System Immobilizer Control Vehicle Anti-Theft System Immobilizer Control	I I	BTM -BTM
4	0.35	WH/RD	1444	12V Reference	I	—
5	0.35	VT/YE	4	Accessory Ignition Voltage	I	—
6	0.35	VT/BK	3	Run/Crank Ignition 1 Voltage	I	—
7 - 8	—	—	—	Not Occupied	—	—
9	0.35	BN/GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
10	0.5	BK/GY	6009	Windshield Wiper Switch Low Reference	I	—
11	0.5	WH	524	Headlamp Dimmer Switch High Beam Signal	I	—
12	0.5	WH/GN	663	Hazard Switch Left Turn Signal	I	—
13	0.5	YE/BU	1714	Windshield Wiper Switch Low Signal	I	—
14	0.5	WH/GY	3849	High Beam Auto On/Off Switch Signal	I	—
15	0.35	WH/VT	1020	Off/Run/Crank Ignition Voltage	I	—
16	0.35	GY/GN	5737	Adaptive Cruise Control Gap Up/Down Switch Signal	I	—
17	0.5	YE/BN	307	Headlamp Switch Flash To Pass Signal	I	—
18	0.35	GN/WH	3287	Horn Switch Signal	I	—
19	0.35	GN/WH	4115	Local Interconnect Network Serial Data Bus 15	I	—
20	0.5	GY	1715	Windshield Wiper Switch High Signal	I	—
21	0.5	VT/YE	5526	Tap Up/Tap Down Switch Signal	I	—
22	0.35	WH/BK	1073	Ignition Key Resistor Signal	I	—
23	0.35	GN	4512	Wireless Charging System Charge Indicator Control	I	—
24	0.5	VT/BU	664	Hazard Switch Right Turn Signal	I	—
25	0.35	WH/BK	94	Windshield Washer Switch Signal	I	—

K9 Body Control Module X4



2537270

Connector Part Information

Harness Type: Body
OEM Connector: 13826914
Service Connector: 13576033
Description: 26-Way F 0.64, 2.8 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4443	Sumitomo 22	E	A
II	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4444	Sumitomo 22	2	A
III	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4444	Sumitomo 22	E	A
IV	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

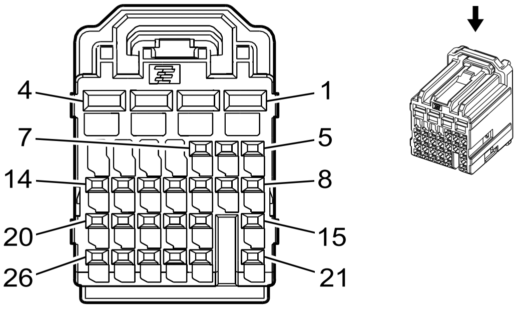
K9 Body Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE	712	Left Headlamp Low Beam Control	II	—
2	1	YE	312	Right Headlamp Low Beam Control	II	—
3	0.5 0.35 0.5	GN/VT GN/VT GN/VT	1315 1315 1315	Right Front Turn Signal Lamp Control Right Front Turn Signal Lamp Control Right Front Turn Signal Lamp Control	III IV I	— DPO -DPO
4	1	BN/GN	19	Right Rear Stop/Turn Lamp Control	II	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.35	GY/BU	7538	Left Front DRL Control	IV	—
8	0.35	VT/GY	1630	Steering Column Key Cylinder Lock Solenoid Control	IV	—
9	0.35	WH/VT	968	—	IV	—
10	—	—	—	Not Occupied	—	—
11	0.35	VT/WH	5065	Stop Lamp Relay Coil Control	IV	—
12	0.35	GY/VT	755	RAP Relay Coil Control	IV	—
13	0.35	GN/YE	6846	Rear License Lamp Control	IV	—
14	0.35	BN/GY	2268	Windshield Washer Relay Control	IV	—
15	0.35	GN/VT	5199	Run/Crank Relay Coil Control	IV	—

K9 Body Control Module X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
16	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	IV	—
17	0.35	BN/GN	196	Windshield Wiper Motor Park Switch Signal	IV	—
18	0.35 0.35	WH/YE GN/BU	5075 761	Current Sensor Signal Blower Speed Feedback Signal	IV IV	— —
19	0.35	BU/YE	6844	ABS/TCS Hill Descent Control Switch Signal	IV	—
20	0.75	RD/YE	2340	Battery Positive Voltage	IV	—
21	0.35	BU/VT	5076	Current Sensor Control	IV	—
22	0.35	VT/YE	5985	Accessory Wakeup Serial Data	IV	—
23	0.35	WH/BU	5986	Serial Data Communication Enable	IV	—
24	0.35	BN/GN	4064	Hood Status B Signal	IV	—
25	0.35	YE/BU	4086	Pushbutton Start Challenge Active Signal	IV	—
26	0.75	BK/WH	2351	Signal Ground	IV	—

K9 Body Control Module X5



2537271

Connector Part Information

Harness Type: Body
OEM Connector: 13826916
Service Connector: 13576034
Description: 26-Way F 0.64, 2.8 Series (BN)

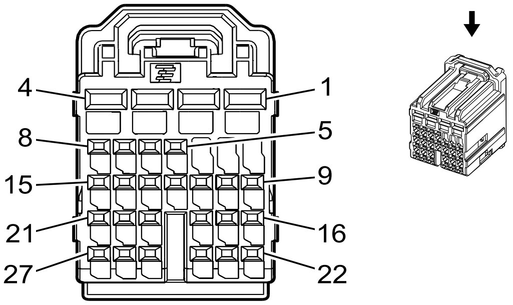
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4443	Sumitomo 22	E	A
II	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4444	Sumitomo 22	2	A
III	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4444	Sumitomo 22	E	A
IV	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K9 Body Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE/BU	18	Left Rear Stop/Turn Lamp Control	II	—
2	0.5 0.35 0.5	BU/WH BU/WH BU/WH	1314 1314 1314	Left Front Turn Signal Lamp Control Left Front Turn Signal Lamp Control Left Front Turn Signal Lamp Control	III IV I	— DPO -DPO
3	0.5	RD/GN	5140	Battery Positive Voltage	I	—
4	0.5	RD/WH	3440	Battery Positive Voltage	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	BK/VT	5077	Current Sensor Low Reference	IV	—
7	0.35	BU/BN	7539	Right Front DRL Control	IV	—
8	0.5	BU/WH	5186	Left Trailer Turn Signal Lamp Control	IV	—
9	0.35	BU/VT	7729	Major Endgate Low Relay Control	IV	—
10	0.5	BN/WH	1317	Fog Lamp Relay Control	IV	—
11	0.35	WH/GN	7728	Major Endgate High Relay Control	IV	—
12	0.35	WH/BU	6311	Cruise/ETC/TCC Brake Signal	IV	—
13	0.35	YE	6812	Out of Park Signal	IV	—
14	0.35	VT/BN	300	Run Ignition 3 Voltage	IV	—
15	0.35	BU/GY	4672	Dome Lamp Off Indicator Control	IV	—
16	—	—	—	Not Occupied	—	—
17	0.5	YE/GY	5187	Right Trailer Turn Signal Lamp Control	IV	—
18	0.35	BN/VT	1969	Headlamp High Beam Relay Control	IV	—
19	0.35	BN/WH	28	Horn Relay Control	IV	—
20	0.35	YE	7755	AC Power Outlet Status Indicator Control	IV	—
21	0.5	YE/BN	2229	Left Headlamp Relay Control	IV	—
22	0.35	BU	45	Park Lamp Relay Control	IV	—
23	—	—	—	Not Occupied	—	—
24	0.35	WH/VT	860	Front Windshield Wiper Switch High Signal	IV	—
25	0.35	BN	7754	AC Power Outlet Enable	IV	—
26	0.35	BU/BN	38	Backup Lamp Relay Control	IV	—

K9 Body Control Module X6



2537272

Connector Part Information

Harness Type: Body
OEM Connector: 13826917
Service Connector: 13576035
Description: 27-Way F 0.64, 2.8 Series (PK)

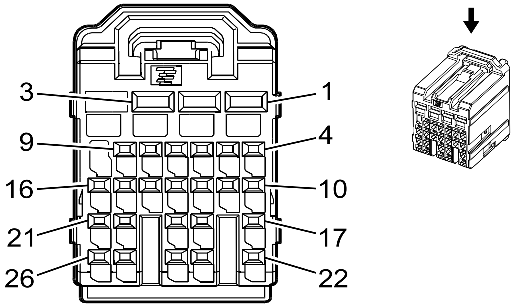
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4444	Sumitomo 22	2	A
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K9 Body Control Module X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY	5911	Door Lock Actuator Lock Control 2	I	—
2	0.75	GY	295	Door Lock Actuator Lock Control	I	—
3	1.5	BK	1150	Ground	II	—
4	0.75	BN/YE	294	Door Lock Actuator Unlock Control	I	—
5	0.35	BN	7291	Major Endgate Release Switch Signal Interior	II	—
6	0.35	BU/VT	1124	Door Lock Key Switch Unlock Signal	II	—
7	0.35	WH/GY	7297	Minor Endgate High Relay Control	II	—
8	—	—	—	Not Occupied	—	—
9	0.35	GN/BU	6133	Local Interconnect Network Serial Data Bus 2	II	—
10	0.35	GN/YE	6134	Local Interconnect Network Serial Data Bus 3	II	—
11	—	—	—	Not Occupied	—	—
12	0.35	YE/BK	5356	Left Tail Lamp Outage Detection Signal	II	—
13	—	—	—	Not Occupied	—	—
14	0.35	GY	7292	Major Endgate Release Switch Signal Exterior	II	—
15	0.35	YE	7294	Minor Endgate Release Switch Discrete Signal Exterior	II	—
16	0.5	GN/BN	6132	Local Interconnect Network Serial Data Bus 1	II	—
17 - 20	—	—	—	Not Occupied	—	—
21	0.35	WH/VT	6821	Surveillance Switch Signal	II	—
22	0.35	VT/YE	5357	Right Tail Lamp Outage Detection Signal	II	—
23	—	—	—	Not Occupied	—	—
24	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
25	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
26	0.35	BN/WH	1429	Standing Lamp Relay Control	II	—
27	0.35	BN/WH	781	Driver Door Lock Switch Unlock Signal	II	—

K9 Body Control Module X7



2537273

Connector Part Information

Harness Type: Body
OEM Connector: 13826915
Service Connector: 13576036
Description: 26-Way F 0.64, 2.8 Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4443	Sumitomo 22	E	A
II	19371240	J-35616-16 (LT GN)	J-38125-215A	8100-4444	Sumitomo 22	E	A
III	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

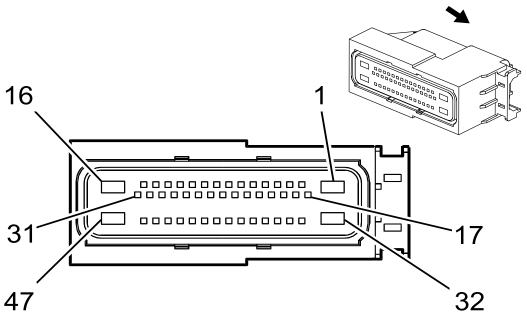
K9 Body Control Module X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5 0.5	WH/BN WH/BN	6815 6815	Inadvertent Power Control Inadvertent Power Control	II I	DH6 -DH6
4	0.5	GY/BU	7762	Cargo Bed Lamp Control	III	—
5	0.35	BU	2082	Puddle Lamp Control	III	—
6	0.35	YE/WH	816	Brake Transmission Shift Interlock Solenoid Control	III	—
7	0.35	GY/BU	7298	Minor Endgate Low Relay Control	III	—
8	0.35	GY/GN	5996	Driver Outside Rear View Mirror Puddle Lamp Control	III	—
9	0.35	YE	6817	LED Backlight Dimming Control	III	—
10	—	—	—	Not Occupied	—	—
11	0.35	BN/YE	780	Driver Door Lock Switch Lock Signal	III	—
12	0.35	BN	4511	Wireless Charging System Fault Indicator Control	III	—
13	0.35	GN/WH	1932	Shift Select Switch Park Signal	III	—
14	0.35 0.35	GY WH/BU	746 3203	Right Front Door Ajar Switch Signal Right Headlamp Bulb Outage Signal	III III	A6R AXG-A6Q
15	0.35	BU/GY	553	Shift Select Switch Performance Signal	III	—

K9 Body Control Module X7 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
16	0.5	WH/BU	3691	Trailer Brake Apply Signal	III	—
17	0.35	BU	2082	Puddle Lamp Control	III	—
18	—	—	—	Not Occupied	—	—
19	0.35	GY	156	Courtesy Lamp Switch Signal	III	—
20	—	—	—	Not Occupied	—	—
21	0.35	YE/VT	244	Passenger Door Lock Switch Lock Control	III	—
22	0.35	WH/YE	7557	LED Ambient Lighting Control 1	III	—
23	—	—	—	Not Occupied	—	—
24	0.35	BN/VT	245	Passenger Door Lock Switch Unlock Control	III	—
25	0.35 0.35	GY BU/VT	745 3204	Left Front Door Ajar Switch Signal Left Headlamp Bulb Outage Signal	III III	A6R AXG-A6Q
26	—	—	—	Not Occupied	—	—

K19 Suspension Control Module (Z45)



1858233

Connector Part Information

Harness Type: Chassis
OEM Connector: 15491306
Service Connector: 19168025
Description: 47-Way F 0.64, 6.3 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	15476168	Delphi 5	F	3
II	19371240	J-35616-16 (LT GN)	J-38125-215A	SAITS-A03T-M064	Yazaki 14	9	9

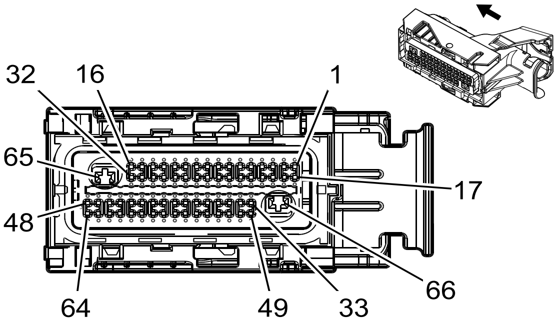
K19 Suspension Control Module (Z45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	BK	1750	Ground	I	—
2	—	—	—	Not Occupied	—	—

K19 Suspension Control Module (Z45) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	0.5	BK/BU	1206	Left Front Strut Position Sensor Low Reference	II	—
4	0.5	BK/GY	1212	Right Front Strut Position Sensor Low Reference	II	—
5	0.5	BK/GN	1209	Left Rear Strut Position Sensor Low Reference	II	—
6 - 9	—	—	—	Not Occupied	—	—
10	0.5	BU/RD	1205	Left Front Strut Position Sensor 5V Reference	II	—
11	0.5	BN/RD	1211	Right Front Strut Position Sensor 5V Reference	II	—
12	0.5	YE/RD	1208	Left Rear Strut Position Sensor 5V Reference	II	—
13 - 15	—	—	—	Not Occupied	—	—
16	2	YE/WH	1213	Right Front Strut Position Sensor Signal	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	II	—
19	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	II	—
20	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	II	—
21	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	II	—
22 - 24	—	—	—	Not Occupied	—	—
25	0.5	GN/WH	1210	Left Rear Strut Position Sensor Signal	II	—
26	—	—	—	Not Occupied	—	—
27	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
28	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
29	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
30	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
31	—	—	—	Not Occupied	—	—
32	2	RD/GN	2440	Battery Positive Voltage	I	—
33	0.75	GN/GY	1119	Right Rear Damping Servo Control	II	—
34	0.75	BN/GN	1118	Right Rear Damping Servo Control	II	—
35	0.75	BU/GY	1114	Left Rear Damping Servo Control	II	—
36	0.75	GN/VT	1115	Left Rear Damping Servo Control	II	—
37 - 38	—	—	—	Not Occupied	—	—
39	0.5	WH/BU	5986	Serial Data Communication Enable	II	—
40	—	—	—	Not Occupied	—	—
41	0.5	BN/WH	1207	Left Front Strut Position Sensor Signal	II	—
42	—	—	—	Not Occupied	—	—
43	0.75	GY/BU	1113	Left Front Damping Servo Control	II	—
44	0.75	BN/WH	1107	Left Front Damping Servo Control	II	—
45	0.75	BN/BU	1116	Right Front Damping Servo Control	II	—
46	0.75	GY/WH	1117	Right Front Damping Servo Control	II	—
47	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L3B)



4504420

Connector Part Information

Harness Type: Engine
OEM Connector: 33303655
Service Connector: 19371186
Description: 66-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	7116-4152-02	Yazaki 9	2	5
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

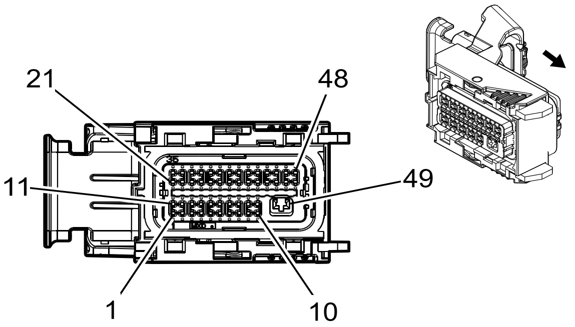
K20 Engine Control Module X1 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	5991	Powertrain Relay Coil Control	II	—
2	0.5	YE/BK	625	Starter Enable Relay Control	II	—
3	0.5	YE/VT	4325	Starter Pinion Solenoid Relay Control	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	VT/GY	3615	Step Cam A Control	II	—
7	0.5	GN/BK	3616	Step Cam B Control	II	—
8	0.5	BU	3584	Camshaft Stepper A Control	II	—
9	0.5	GN	3585	Camshaft Stepper B Control	II	—
10	0.5	YE/BU	3587	Camshaft Stepper D Control	II	—
11	0.5	GY	3586	Camshaft Stepper C Control	II	—
12	0.5	BU/WH	3589	Camshaft Stepper Position Sensor 1 Signal	II	—
13	0.5	GN/WH	3592	Camshaft Stepper Position Sensor 2 Signal	II	—
14	0.5	WH	924	—	II	—
15	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	—
16	0.5	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
17	0.75	GN/GY	465	Fuel Pump Primary Relay Control	II	—
18	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
19	0.5	BN/WH	419	Check Engine Indicator Control	II	—
20 - 21	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L3B) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
22	0.5	BN/GN	927	—	II	—
23	0.5	BU	926	—	II	—
24	0.5	YE/VT	6265	Camshaft CAM W Signal	II	—
25	0.5	VT/BK	6264	Camshaft CAM X Signal	II	—
26	0.5	GY/BN	6262	Camshaft CAM Z Signal	II	—
27	0.5	GN/BN	6261	Camshaft CAM Z Control	II	—
28	0.5	BU/BK	928	—	II	—
29	0.5	BU	932	—	II	—
30	0.5	GY/BN	933	—	II	—
31	—	—	—	Not Occupied	—	—
32	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	II	—
33	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	—
34	0.5	YE/WH	3746	Camshaft Exhaust Lobe Axial Position Signal (1)	II	—
35	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	—
36	0.5	YE/GN	3747	Camshaft Exhaust Lobe Axial Position Signal (2)	II	—
37	0.5	YE	4063	Hood Status A Signal	II	—
38	—	—	—	Not Occupied	—	—
39	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	II	—
40 - 41	—	—	—	Not Occupied	—	—
42	0.5	GN/BN	2732	Local Interconnect Network Bus 32	II	—
43 - 44	—	—	—	Not Occupied	—	—
45	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	II	—
46	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	II	—
47	0.5	GN/WH	492	Mass Air Flow Sensor Signal	II	—
48	0.5	RD/BN	440	Battery Positive Voltage	II	—
49	0.5	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	II	—
50	0.5	VT/WH	3744	Camshaft Intake Lobe Axial Position Signal (1)	II	—
51	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
52	0.5	VT/GN	3745	Camshaft Intake Lobe Axial Position Signal (2)	II	—
53	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	II	—
54	0.5	BN	4645	Heater Core Outlet Temperature Signal	II	—
55	0.5	GN	380	A/C Refrigerant Pressure Sensor Signal	II	—
56	0.5	WH/GN	5380	Brake Position Sensor Signal	II	—
57	0.5	GN/WH	1162	Accelerator Pedal Position Signal 2	II	—
58	—	—	—	Not Occupied	—	—
59	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
60	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
61	—	—	—	Not Occupied	—	—
62	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	—
63	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	II	—
64	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	II	—
65	2	BK/WH	451	Signal Ground	I	—
66	2	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—

K20 Engine Control Module X2 (L3B)



4596458

Connector Part Information

Harness Type: Engine
OEM Connector: 33303656
Service Connector: 19355678
Description: 49-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	7116-4152-02	Yazaki 9	2	5
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

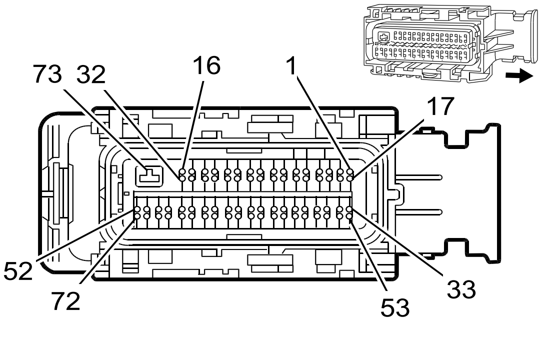
K20 Engine Control Module X2 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/GN	4320	Powertrain Sensor Bus Enable	II	—
2	1	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	II	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	BN/BU	2447	Evaporative Purge Pump Pressure Signal	II	—
6 - 8	—	—	—	Not Occupied	—	—
9	0.75	VT/BU	5294	Powertrain Main Relay Fused Supply 5	II	—
10	0.5	BK/BU	2979	Coolant Diverter Valve Position Sensor Low Reference	II	—
11	—	—	—	Not Occupied	—	—
12	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	II	—
13 - 14	—	—	—	Not Occupied	—	—
15	0.5	GN/YE	3337	Transmission Internal Mode Switch Mode Control A	II	—
16	0.5	YE/BN	331	Oil Pressure Sensor Signal	II	—
17	0.5	WH/VT	4108	Driver Mode Switch Signal	II	—
18	—	—	—	Not Occupied	—	—
19	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	II	—
20	0.5	WH	2590	Turbo Charger Wastegate Motor Feedback Signal	II	—
21	—	—	—	Not Occupied	—	—

K20 Engine Control Module X2 (L3B) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
22	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	II	—
23	0.5	VT	7485	Oil Temperature Sensor Signal	II	—
24	0.5	BN/BU	357	Oil Temperature Sensor Signal	II	—
25	0.5	YE	3054	Turbo Intake Pressure Sensor Signal Bank 1	II	—
26 - 28	—	—	—	Not Occupied	—	—
29	0.75	YE/GY	3926	Crankcase Differential Pressure Sensor Signal	II	—
30	—	—	—	Not Occupied	—	—
31	0.75	YE/GY	6936	Heated Oxygen Sensor Collector Signal	II	—
32	0.75	BN	6934	Heated Oxygen Sensor Ground	II	—
33	0.5	GN/YE	4623	Local Interconnect Network Serial Data Bus 23	II	—
34	0.75	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	II	—
35	—	—	—	Not Occupied	—	—
36	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	II	—
37	0.5	YE/BK	3000	Coolant Temperature Sensor 2 Signal	II	—
38	0.5	BN/GY	4644	Heater Core Inlet Temperature Signal	II	—
39	—	—	—	Not Occupied	—	—
40	0.5	GY/VT	2404	Engine Block Coolant Temperature Signal	II	—
41 - 44	—	—	—	Not Occupied	—	—
45	0.75	GN	6935	Heated Oxygen Sensor Current Adjust Signal	II	—
46	0.75	BN/WH	6933	Heated Oxygen Sensor Current Pump Signal	II	—
47	0.5	GN/VT	4621	Local Interconnect Network Serial Data Bus 21	II	—
48	0.5	GN/WH	4622	Local Interconnect Network Serial Data Bus 22	II	—
49	2	BK/WH	451	Signal Ground	I	—

K20 Engine Control Module X3 (L3B)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15497996
Service Connector: 88988372
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1326030-8	Lear 17	A	4
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

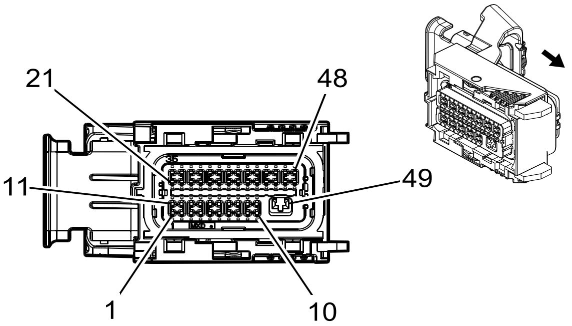
K20 Engine Control Module X3 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	GN	3060	Turbo Bypass Solenoid Control Bank 1	II	—
3	0.5	BN	25	Charge Indicator Control	II	—
4	0.5	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	II	—
5	—	—	—	Not Occupied	—	—
6	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	II	—
7	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	II	—
8	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	II	—
9	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	II	—
10	0.75	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	II	—
11	0.75	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	II	—
12	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	II	—
13	0.5	GY/BU	5282	Camshaft Phaser Exhaust Solenoid 1	II	—
14	0.75	BU	2976	Coolant Diverter Valve Actuator Control Low	II	—
15	0.75	WH/BN	2591	Turbo Charger Wastegate Motor Open Control	II	—
16	0.75	WH/BU	2592	Turbo Charger Wastegate Motor Close Control	II	—
17 - 20	—	—	—	Not Occupied	—	—
21	0.75	BK/YE	548	Engine Control Sensors Low Reference (1)	II	—
22	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	II	—
23	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	II	—
24	0.5	YE/BU	2408	Engine Inlet Coolant Temperature Signal	II	—
25	0.5	VT	2988	Engine Outlet Coolant Temperature Signal	II	—
26	0.5	BN	7348	Induction Air Temperature Sensor 2 Signal	II	—
27	0.5	BN	906	—	II	—
28	0.5	BK/BN	6753	Cam Phaser W Low Reference	II	—
29	0.5	BK/VT	6754	Cam Phaser X Low Reference	II	—
30	0.5	YE	581	Throttle Actuator Control Open	II	—
31	0.5	BN/WH	582	Throttle Actuator Control Close	II	—
32	0.75	BU/BN	2977	Coolant Diverter Valve Actuator Control High	II	—
33	0.5	VT/GY	496	Knock Sensor Signal 1	II	—
34	0.5	WH/GY	1876	Knock Sensor Signal 2	II	—
35	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	II	—
36	0.75	GN/BU	428	EVAP Canister Purge Solenoid Control	II	—
37 - 38	—	—	—	Not Occupied	—	—
39	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	II	—

K20 Engine Control Module X3 (L3B) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
40	0.5	BK/GY	5296	Camshaft Position Exhaust Sensor Low Reference 1	II	—
41	—	—	—	Not Occupied	—	—
42	0.5	VT/BK	5273	Camshaft Position Exhaust Sensor 1	II	—
43	0.5	GN	6271	Crankshaft 60X Sensor Signal	II	—
44	0.5	YE/BU	2124	Ignition Control 4	II	—
45	0.5	BU/WH	2122	Ignition Control 2	II	—
46	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	II	—
47	0.75	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	II	—
48	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	II	—
49	0.75	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	II	—
50	0.75	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	II	—
51	0.75	BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	II	—
52	0.75	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	II	—
53	0.5	BK/YE	1716	Knock Sensor Low Reference 1	II	—
54	0.5	BK/GY	2303	Knock Sensor Low Reference 2	II	—
55	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	II	—
56	0.5	YE/BN	106	Oil Pump Motor Control	II	—
57	0.5	BU	179	Oil Pump Command Signal	II	—
58	—	—	—	Not Occupied	—	—
59	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	II	—
60	0.5	GY/YE	5297	Camshaft Position Exhaust Sensor Control 1	II	—
61	0.5	GY	23	Generator Field Duty Cycle Signal	II	—
62	—	—	—	Not Occupied	—	—
63	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	II	—
64	0.5	BU/VT	2121	Ignition Control 1	II	—
65	0.5	GN/BU	2123	Ignition Control 3	II	—
66	—	—	—	Not Occupied	—	—
67	0.75	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	II	—
68	0.75	YE	7301	High Pressure Fuel Pump Actuator High - Control	II	—
69	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	II	—
70	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	II	—
71	0.75	GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	II	—
72	0.75	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	II	—
73	2	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—

K20 Engine Control Module X1 (L82)



4596458

Connector Part Information

Harness Type: Engine
OEM Connector: 33315785
Service Connector: 19368142
Description: 49-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1326030-8	Lear 17	A	4
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

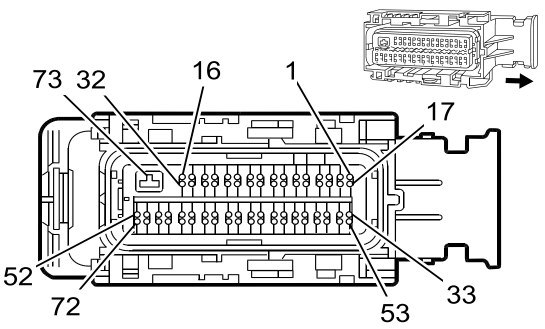
K20 Engine Control Module X1 (L82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/WH	492	Mass Air Flow Sensor Signal	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	II	—
4	—	—	—	Not Occupied	—	—
5	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	II	—
6	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	—
7	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
8	0.5	BN/WH	419	Check Engine Indicator Control	II	—
9	0.5	YE	5991	Powertrain Relay Coil Control	II	—
10	0.5	BN/YE	473	High Speed Cooling Fan Relay Control	II	—
11	—	—	—	Not Occupied	—	—
12	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	II	—
13	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	II	—
14	0.5	WH/GN	5380	Brake Position Sensor Signal	II	—
15	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	II	—
16	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	II	—
17	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
18	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
19 - 20	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L82) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
21	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	II	—
22	—	—	—	Not Occupied	—	—
23	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	II	—
24	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	—
25 - 27	—	—	—	Not Occupied	—	—
28	0.5	BN/GN	1174	Oil Level Switch Signal	II	—
29	—	—	—	Not Occupied	—	—
30	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
33	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	—
34	0.5	RD/BN	440	Battery Positive Voltage	II	—
35	0.5	VT/YE	3854	Cabin Heater Coolant Motor Control	II	—
36	0.5	YE/BK	625	Starter Enable Relay Control	II	—
37	0.5	GN/GY	465	Fuel Pump Primary Relay Control	II	—
38	0.5	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	II	—
39	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	II	—
40	0.5	YE/BN	331	Oil Pressure Sensor Signal	II	—
41	0.5	GN	380	A/C Refrigerant Pressure Sensor Signal	II	—
42	0.5	WH	1579	Fuel Temperature/Composition Signal	II	—
43	—	—	—	Not Occupied	—	—
44	0.5	GN/WH	1162	Accelerator Pedal Position Signal 2	II	—
45	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
46	0.5	YE	4063	Hood Status A Signal	II	—
47	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	II	—
48	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
49	2	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—

K20 Engine Control Module X2 (L82)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15499466

Service Connector: 88988931
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1326030-8	Lear 17	4	D
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

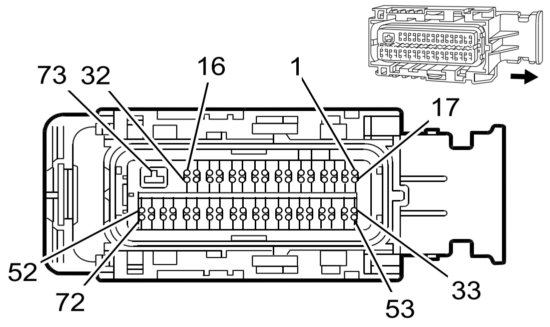
K20 Engine Control Module X2 (L82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	GN/WH	4622	Local Interconnect Network Serial Data Bus 22	II	—
8	0.5	GN/VT	4621	Local Interconnect Network Serial Data Bus 21	II	—
9	—	—	—	Not Occupied	—	—
10	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	II	—
11	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	II	—
12	0.5	YE/BU	2124	Ignition Control 4	II	—
13	0.5	BN/BU	2126	Ignition Control 6	II	—
14	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
15	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
16	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
17	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	II	—
18 - 20	—	—	—	Not Occupied	—	—
21	0.5	WH/BN	2203	Enhanced Driver Mode 2 Switch Signal	II	—
22 - 25	—	—	—	Not Occupied	—	—
26	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	II	—
27	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	II	—
28	0.5	GN/BU	2123	Ignition Control 3	II	—
29	0.5	BU/GY	2125	Ignition Control 5	II	—
30	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	II	—
31	0.5	BN	5496	Cylinder Shutoff Solenoid Control 6	II	—
32	0.5	YE/BN	2496	Cylinder Shutoff Solenoid Enable (6)	II	—
33	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	II	—
34	—	—	—	Not Occupied	—	—
35	0.5	BU	179	Oil Pump Command Signal	II	—
36	0.5	YE/GN	2494	Cylinder Shutoff Solenoid Enable (4)	II	—
37	0.75	VT/BU	5294	Powertrain Main Relay Fused Supply 5	II	—

K20 Engine Control Module X2 (L82) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
38	—	—	—	Not Occupied	—	—
39	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	II	—
40 - 45	—	—	—	Not Occupied	—	—
46	0.5	YE/BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	II	—
47	0.5	VT/GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	II	—
48 - 49	—	—	—	Not Occupied	—	—
50	0.75	BK/GY	2303	Knock Sensor Low Reference 2	II	—
51	0.75	BK/YE	1716	Knock Sensor Low Reference 1	II	—
52	0.5	BN/WH	582	Throttle Actuator Control Close	II	—
53	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	II	—
54 - 55	—	—	—	Not Occupied	—	—
56	0.5	YE/BU	5494	Cylinder Shutoff Solenoid Control 4	II	—
57 - 58	—	—	—	Not Occupied	—	—
59	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	II	—
60 - 65	—	—	—	Not Occupied	—	—
66	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	II	—
67	0.5	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	II	—
68 - 69	—	—	—	Not Occupied	—	—
70	0.75	WH/GY	1876	Knock Sensor Signal 2	II	—
71	0.75	VT/GY	496	Knock Sensor Signal 1	II	—
72	0.5	YE	581	Throttle Actuator Control Open	II	—
73	2.5	BK/WH	451	Signal Ground	I	—

K20 Engine Control Module X3 (L82)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15497996
Service Connector: 88988372
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1326030-8	Lear 17	4	D
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

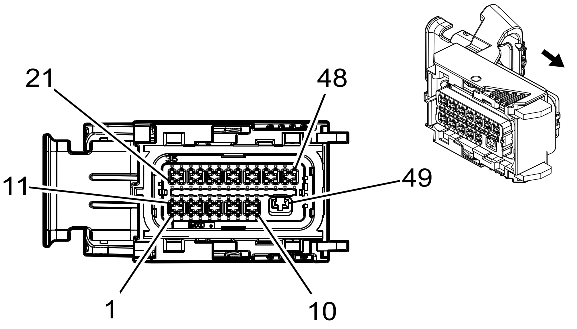
K20 Engine Control Module X3 (L82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	5497	Cylinder Shutoff Solenoid Control 7	II	—
2	0.5	GN/GY	2497	Cylinder Shutoff Solenoid Enable (7)	II	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	II	—
6	0.5	VT/GN	4320	Powertrain Sensor Bus Enable	II	—
7	—	—	—	Not Occupied	—	—
8	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	II	—
9	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	II	—
10	0.5	GN	6271	Crankshaft 60X Sensor Signal	II	—
11	0.5	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	II	—
12	0.5	BU/WH	2122	Ignition Control 2	II	—
13	0.5	VT/WH	2128	Ignition Control 8	II	—
14	0.5	BN	25	Charge Indicator Control	II	—
15	—	—	—	Not Occupied	—	—
16	0.75	YE	7301	High Pressure Fuel Pump Actuator High - Control	II	—
17 - 18	—	—	—	Not Occupied	—	—
19	0.5	BN/WH	6354	Output Speed High (Replicated TOS) Input Signal	II	—
20	—	—	—	Not Occupied	—	—
21	0.5	BK/BN	6753	Cam Phaser W Low Reference	II	—
22 - 23	—	—	—	Not Occupied	—	—
24	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	II	—
25	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	II	—
26	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	II	—
27	—	—	—	Not Occupied	—	—
28	0.5	GN/GY	2127	Ignition Control 7	II	—
29	0.5	BU/VT	2121	Ignition Control 1	II	—
30	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	II	—
33	0.5	YE/VT	4325	Starter Pinion Solenoid Relay Control	II	—
34	0.5	WH/BU	2491	Cylinder Shutoff Solenoid Enable (1)	II	—
35	—	—	—	Not Occupied	—	—
36	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	II	—
37	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	II	—

K20 Engine Control Module X3 (L82) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
38 - 39	—	—	—	Not Occupied	—	—
40	0.5	BN/BU	357	Oil Temperature Sensor Signal	II	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	II	—
44	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	II	—
45	0.75	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	II	—
46	0.75	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	II	—
47	0.75	WH/GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	II	—
48	0.75	GN/VT	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	II	—
49	0.75	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	II	—
50	0.75	YE/GY	4807	Direct Fuel Injector (DFI) High Voltage Control Cylinder 7	II	—
51	0.75	GY	4808	Direct Fuel Injector (DFI) High Voltage Control Cylinder 8	II	—
52	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	II	—
53	0.5	BU	5491	Cylinder Shutoff Solenoid Control 1	II	—
54	—	—	—	Not Occupied	—	—
55	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	II	—
56	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	II	—
57	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	II	—
58	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	II	—
59	—	—	—	Not Occupied	—	—
60	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	II	—
61	0.5	BU	410	Engine Coolant Temperature Sensor Signal	II	—
62	—	—	—	Not Occupied	—	—
63	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	II	—
64	0.5	GY	23	Generator Field Duty Cycle Signal	II	—
65	0.75	GN/BK	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	II	—
66	0.75	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	II	—
67	0.75	GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	II	—
68	0.75	VT	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	II	—
69	0.75	BN/GN	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	II	—
70	0.75	WH/YE	4907	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 7	II	—
71	0.75	WH/GN	4908	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 8	II	—
72	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	II	—
73	2.5	BK/WH	451	Signal Ground	I	—

K20 Engine Control Module X1 (L84/L87)



4596458

Connector Part Information

Harness Type: Engine
OEM Connector: 33315785
Service Connector: 19368142
Description: 49-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1326030-8	Lear 17	A	4
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

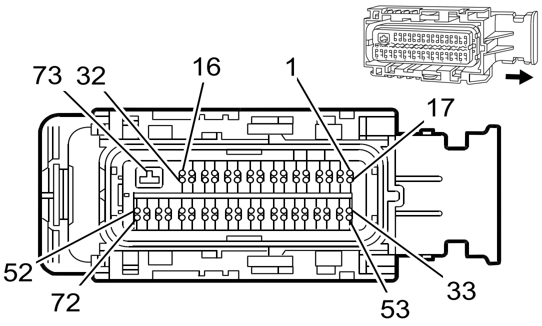
K20 Engine Control Module X1 (L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/WH	492	Mass Air Flow Sensor Signal	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	II	—
4	—	—	—	Not Occupied	—	—
5	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	II	—
6	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	—
7	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
8	0.5	BN/WH	419	Check Engine Indicator Control	II	—
9	0.5	YE	5991	Powertrain Relay Coil Control	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	II	—
13	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	II	—
14	0.5	WH/GN	5380	Brake Position Sensor Signal	II	—
15	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	II	—
16	—	—	—	Not Occupied	—	—
17	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
18	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
19 - 20	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L84/L87) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
21	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	II	—
22	—	—	—	Not Occupied	—	—
23	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	II	—
24	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	—
25 - 26	—	—	—	Not Occupied	—	—
27	0.5 0.5	WH/BU GN/YE	5726 3337	Ignition Mode Switch Mode Control Backup Transmission Internal Mode Switch Mode Control A	II II	MQB/MGM/MGU MQE+L84
28	0.5	BN/GN	1174	Oil Level Switch Signal	II	—
29	—	—	—	Not Occupied	—	—
30	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
33	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	—
34	0.5	RD/BN	440	Battery Positive Voltage	II	—
35	0.5	VT/YE	3854	Cabin Heater Coolant Motor Control	II	—
36	0.5	YE/BK	625	Starter Enable Relay Control	II	—
37	0.5	GN/GY	465	Fuel Pump Primary Relay Control	II	—
38	0.5	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	II	—
39	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	II	—
40	0.5	YE/BN	331	Oil Pressure Sensor Signal	II	—
41	0.5	GN	380	A/C Refrigerant Pressure Sensor Signal	II	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	GN/WH	1162	Accelerator Pedal Position Signal 2	II	—
45	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
46	0.5	YE	4063	Hood Status A Signal	II	—
47	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	II	—
48	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
49	2	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—

K20 Engine Control Module X2 (L84/L87)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15499466
Service Connector: 88988931
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1326030-8	Lear 17	4	D
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

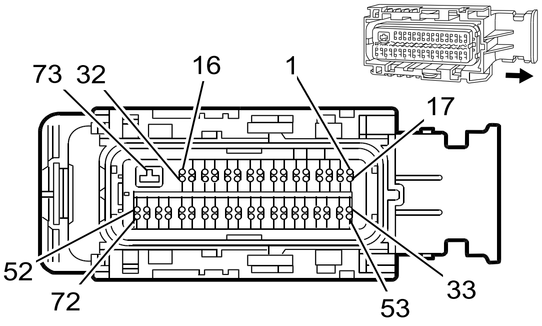
K20 Engine Control Module X2 (L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	II	—
2	0.5	GY	5493	Cylinder Shutoff Solenoid Control 3	II	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	GN/WH	4622	Local Interconnect Network Serial Data Bus 22	II	—
8	0.5	GN/VT	4621	Local Interconnect Network Serial Data Bus 21	II	—
9	—	—	—	Not Occupied	—	—
10	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	II	—
11	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	II	—
12	0.5	YE/BU	2124	Ignition Control 4	II	—
13	0.5	BN/BU	2126	Ignition Control 6	II	—
14	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
15	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
16	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
17	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	II	—
18	0.5	YE/GY	2493	Cylinder Shutoff Solenoid Enable (3)	II	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	WH/BN	2203	Enhanced Driver Mode 2 Switch Signal	II	—
22 - 25	—	—	—	Not Occupied	—	—
26	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	II	—
27	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	II	—
28	0.5	GN/BU	2123	Ignition Control 3	II	—
29	0.5	BU/GY	2125	Ignition Control 5	II	—
30	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	II	—
31	0.5	BN	5496	Cylinder Shutoff Solenoid Control 6	II	—
32	0.5	YE/BN	2496	Cylinder Shutoff Solenoid Enable (6)	II	—
33	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	II	—

K20 Engine Control Module X2 (L84/L87) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
34	—	—	—	Not Occupied	—	—
35	0.5	BU	179	Oil Pump Command Signal	II	—
36	0.5	YE/GN	2494	Cylinder Shutoff Solenoid Enable (4)	II	—
37	0.75	VT/BU	5294	Powertrain Main Relay Fused Supply 5	II	—
38	—	—	—	Not Occupied	—	—
39	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	II	—
40 - 45	—	—	—	Not Occupied	—	—
46	0.5	YE/BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	II	—
47	0.5	VT/GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	II	—
48 - 49	—	—	—	Not Occupied	—	—
50	0.75	BK/GY	2303	Knock Sensor Low Reference 2	II	—
51	0.75	BK/YE	1716	Knock Sensor Low Reference 1	II	—
52	0.5	BN/WH	582	Throttle Actuator Control Close	II	—
53	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	II	—
54	0.5	VT	5495	Cylinder Shutoff Solenoid Control 5	II	—
55	0.5	WH/VT	2495	Cylinder Shutoff Solenoid Enable (5)	II	—
56	0.5	YE/BU	5494	Cylinder Shutoff Solenoid Control 4	II	—
57	0.5	GN	5492	Cylinder Shutoff Solenoid Control 2	II	—
58	0.5	WH/GN	2492	Cylinder Shutoff Solenoid Enable (2)	II	—
59	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	II	—
60 - 65	—	—	—	Not Occupied	—	—
66	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	II	—
67	0.5	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	II	—
68 - 69	—	—	—	Not Occupied	—	—
70	0.75	WH/GY	1876	Knock Sensor Signal 2	II	—
71	0.75	VT/GY	496	Knock Sensor Signal 1	II	—
72	0.5	YE	581	Throttle Actuator Control Open	II	—
73	2.5	BK/WH	451	Signal Ground	I	—

K20 Engine Control Module X3 (L84/L87)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15497996
Service Connector: 88988372
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1326030-8	Lear 17	4	D
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K20 Engine Control Module X3 (L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	5497	Cylinder Shutoff Solenoid Control 7	II	—
2	0.5	GN/GY	2497	Cylinder Shutoff Solenoid Enable (7)	II	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	II	—
6	0.5	VT/GN	4320	Powertrain Sensor Bus Enable	II	—
7	—	—	—	Not Occupied	—	—
8	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	II	—
9	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	II	—
10	0.5	GN	6271	Crankshaft 60X Sensor Signal	II	—
11	0.5	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	II	—
12	0.5	BU/WH	2122	Ignition Control 2	II	—
13	0.5	VT/WH	2128	Ignition Control 8	II	—
14	0.5	BN	25	Charge Indicator Control	II	—
15	—	—	—	Not Occupied	—	—
16	0.75	YE	7301	High Pressure Fuel Pump Actuator High - Control	II	—
17 - 20	—	—	—	Not Occupied	—	—
21	0.5	BK/BN	6753	Cam Phaser W Low Reference	II	—
22 - 23	—	—	—	Not Occupied	—	—

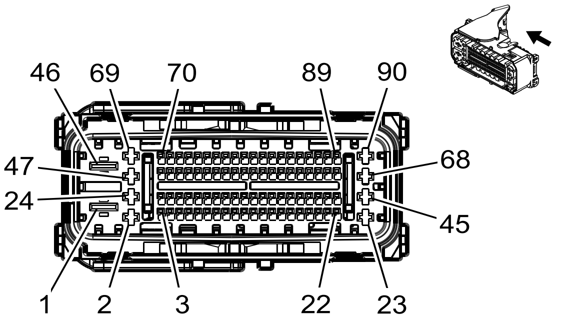
K20 Engine Control Module X3 (L84/L87) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	II	—
25	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	II	—
26	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	II	—
27	—	—	—	Not Occupied	—	—
28	0.5	GN/GY	2127	Ignition Control 7	II	—
29	0.5	BU/VT	2121	Ignition Control 1	II	—
30	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	II	—
33	0.5	YE/VT	4325	Starter Pinion Solenoid Relay Control	II	—
34	0.5	WH/BU	2491	Cylinder Shutoff Solenoid Enable (1)	II	—
35	0.5	WH/YE	2498	Cylinder Shutoff Solenoid Enable (8)	II	—
36	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	II	—
37	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	II	—
38 - 39	—	—	—	Not Occupied	—	—
40	0.5	BN/BU	357	Oil Temperature Sensor Signal	II	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	II	—
44	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	II	—
45	0.75	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	II	—
46	0.75	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	II	—
47	0.75	WH/GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	II	—
48	0.75	GN/VT	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	II	—
49	0.75	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	II	—
50	0.75	YE/GY	4807	Direct Fuel Injector (DFI) High Voltage Control Cylinder 7	II	—
51	0.75	GY	4808	Direct Fuel Injector (DFI) High Voltage Control Cylinder 8	II	—
52	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	II	—
53	0.5	BU	5491	Cylinder Shutoff Solenoid Control 1	II	—
54	0.5	YE	5498	Cylinder Shutoff Solenoid Control 8	II	—
55	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	II	—
56	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	II	—
57	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	II	—
58	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	II	—
59	—	—	—	Not Occupied	—	—
60	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	II	—
61	0.5	BU	410	Engine Coolant Temperature Sensor Signal	II	—
62	—	—	—	Not Occupied	—	—

K20 Engine Control Module X3 (L84/L87) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
63	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	II	—
64	0.5	GY	23	Generator Field Duty Cycle Signal	II	—
65	0.75	GN/BK	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	II	—
66	0.75	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	II	—
67	0.75	GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	II	—
68	0.75	VT	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	II	—
69	0.75	BN/GN	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	II	—
70	0.75	WH/YE	4907	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 7	II	—
71	0.75	WH/GN	4908	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 8	II	—
72	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	II	—
73	2.5	BK/WH	451	Signal Ground	I	—

K20 Engine Control Module X1 (LM2)



4997706

Connector Part Information

Harness Type: Engine
OEM Connector: 35021651
Service Connector: 84628960
Description: 90-Way F 0.64 GEN-Y, 2.8, 6.3 MCP Series, Sealed (BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1-968857-3	Lear 7	C	1
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

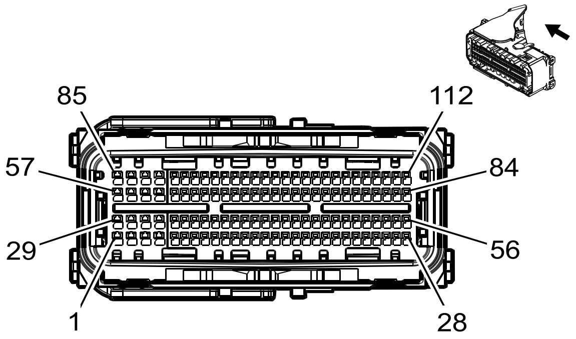
K20 Engine Control Module X1 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	6	BK/WH	451	Signal Ground	II	—
2	0.75	YE/VT	7245	High Pressure Fuel Pump Low Enable	II	—
3	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	II	—
4	—	—	—	Not Occupied	—	—
5	0.5	BN/BU	4065	Powertrain Mount Solenoid Control 1	II	—
6	0.5	BN/YE	473	High Speed Cooling Fan Relay Control	II	—
7	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
8	—	—	—	Not Occupied	—	—
9	0.5	VT/GY	7246	Exhaust Gas Recirculation Differential Pressure Signal	II	—
10	0.5	YE/GY	3926	Crankcase Differential Pressure Sensor Signal	II	—
11 - 14	—	—	—	Not Occupied	—	—
15	0.5	GN	380	A/C Refrigerant Pressure Sensor Signal	II	—
16	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	II	—
17	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	II	—
18	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
19	0.75	GY/BK	1330	Variable Geometry Turbocharger Position Sensor Motor Close Control	II	—
20	0.75	WH/VT	5764	Exhaust Gas Recirculation Valve Motor High Signal	II	—
21	0.75	WH/BN	1313	Variable Geometry Turbocharger Position Sensor Motor Open Control	II	—
22	0.75	VT/BK	5746	Exhaust Gas Recirculation Valve Motor Low Signal	II	—
23	0.75	RD/BN	440	Battery Positive Voltage	II	—
24	1	YE/VT	2420	Fuel High Pressure Pump Low Enable	II	—
25	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	II	—
26	0.5	YE	5991	Powertrain Relay Coil Control	II	—
27	0.5	BN/WH	419	Check Engine Indicator Control	II	—
28	0.5	GN/BN	507	Wait To Start Indicator Control	II	—
29	—	—	—	Not Occupied	—	—
30	0.5	YE/BN	331	Oil Pressure Sensor Signal	II	—
31	0.5	WH/BN	2203	Enhanced Driver Mode 2 Switch Signal	II	—
32 - 33	—	—	—	Not Occupied	—	—
34	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	—
35 - 36	—	—	—	Not Occupied	—	—
37	0.5	WH/BU	5726	Ignition Mode Switch Mode Control Backup	II	—
38	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	II	—
39	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	II	—
40	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
41	—	—	—	Not Occupied	—	—
42	0.75	YE/BN	1420	Exhaust Restrictor Motor Open Control	II	—
43	—	—	—	Not Occupied	—	—
44	0.75	BN	1421	Exhaust Restrictor Motor Closed Control	II	—
45	—	—	—	Not Occupied	—	—
46	4	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
47	0.75	GY/BN	7244	High Pressure Fuel Pump High Side Supply	II	—

K20 Engine Control Module X1 (LM2) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
48	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	—
49	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	—
50	0.5	GN/WH	1162	Accelerator Pedal Position Signal 2	II	—
51	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
52	0.5	WH/GN	5380	Brake Position Sensor Signal	II	—
53	—	—	—	Not Occupied	—	—
54	0.5	YE	4063	Hood Status A Signal	II	—
55	—	—	—	Not Occupied	—	—
56	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	II	—
57	0.5	GY	2973	Coolant Flow Control Valve Position Signal	II	—
58	0.5	GN/GY	7316	Variable Swirl Valve PWM Control Signal	II	—
59 - 60	—	—	—	Not Occupied	—	—
61	0.5	GN/WH	492	Mass Air Flow Sensor Signal	II	—
62 - 64	—	—	—	Not Occupied	—	—
65	0.5	GN/BU	3889	DEF Power Module Relay Control	II	—
66	0.75	GY/BU	2971	Coolant Flow Control Actuator Control Low	II	—
67	—	—	—	Not Occupied	—	—
68	2.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—
69	1	GY/BN	2419	Fuel High Pressure Pump High Side Supply	II	—
70	0.75	VT/GN	439	Run/Crank Ignition 1 Voltage	II	—
71	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	—
72	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	II	—
73	0.5	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	II	—
74	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	II	—
75	0.5	VT	7485	Oil Temperature Sensor Signal	II	—
76	0.5	BN	4645	Heater Core Outlet Temperature Signal	II	—
77	—	—	—	Not Occupied	—	—
78	0.5	GY/VT	2404	Engine Block Coolant Temperature Signal	II	—
79	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	II	—
80	—	—	—	Not Occupied	—	—
81	0.5	VT/YE	5947	Variable Nozzle Turbo Position Sensor Signal	II	—
82	0.5	BN/WH	5763	Exhaust Gas Recirculation Valve Sensor Signal	II	—
83	0.5	BU/GY	2978	Coolant Diverter Valve Position Signal	II	—
84	—	—	—	Not Occupied	—	—
85	0.5	BN/GN	4305	Exhaust Flapper Valve Control 1	II	—
86	0.5	GN/GY	465	Fuel Pump Primary Relay Control	II	—
87	0.5	YE/BK	625	Starter Enable Relay Control	II	—
88	0.75	GY/BN	2972	Coolant Flow Control Actuator Control High	II	—
89	—	—	—	Not Occupied	—	—
90	2.5	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—

K20 Engine Control Module X2 (LM2)



4997563

Connector Part Information

Harness Type: Engine
OEM Connector: 35021652
Service Connector: 84628959
Description: 112-Way F 0.64 GEN-Y, 1.2 MCON Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K20 Engine Control Module X2 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	I	—
2	1.5	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	I	—
3	0.75	BK/YE	2834	Fuel Rail Pressure Solenoid Low Reference	I	—
4	0.75	BU/WH	2530	Fuel Rail Pressure Solenoid Control	I	—
5	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
6	0.5	GN	6271	Crankshaft 60X Sensor Signal	I	—
7	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	I	—
8	0.5	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	I	—
9	0.75	BN	3099	DEF Dosing Valve High Control	I	—
10	0.5	BN/YE	4066	Powertrain Mount Solenoid Control 2	I	—
11	0.5	BN	25	Charge Indicator Control	I	—
12	0.5	BN/BU	357	Oil Temperature Sensor Signal	I	—
13	0.5	YE/BU	2408	Engine Inlet Coolant Temperature Signal	I	—
14	0.5	VT	2988	Engine Outlet Coolant Temperature Signal	I	—
15	0.5	YE/BK	3000	Coolant Temperature Sensor 2 Signal	I	—
16	0.5	BN/GY	4644	Heater Core Inlet Temperature Signal	I	—
17	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	I	—
18	0.5	YE/BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	I	—

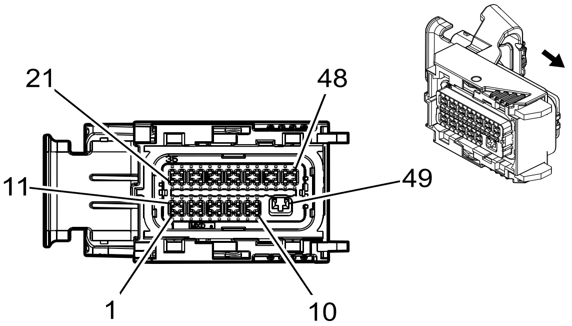
K20 Engine Control Module X2 (LM2) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	BN/YE	1372	Engine Metal Temperature Sensor Signal (2)	I	—
22	0.5	GY/BU	6118	Manifold Air Temperature Sensor Signal	I	—
23	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
24	—	—	—	Not Occupied	—	—
25	0.5	YE/GN	3236	Exhaust Gas Recirculation Temperature Sensor 2 Signal	I	—
26	0.75	BU/WH	4014	Low Pressure Exhaust Gas Recirculation Actuator Control Open	I	—
27	0.75	BU/BN	2977	Coolant Diverter Valve Actuator Control High	I	—
28	0.75	BU	2976	Coolant Diverter Valve Actuator Control Low	I	—
29	1.5	GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	I	—
30	1.5	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	I	—
31	0.75	BU	179	Oil Pump Command Signal	I	—
32	0.75	YE/BN	106	Oil Pump Motor Control	I	—
33	0.5	BK/GY	5296	Camshaft Position Exhaust Sensor Low Reference 1	I	—
34	0.5	VT/BK	5273	Camshaft Position Exhaust Sensor 1	I	—
35	0.5	GY/YE	5297	Camshaft Position Exhaust Sensor Control 1	I	—
36	—	—	—	Not Occupied	—	—
37	0.75	BN/WH	3100	DEF Dosing Valve Low Control	I	—
38	—	—	—	Not Occupied	—	—
39	0.5	GY/BN	7071	Heater Fuel Control	I	—
40 - 45	—	—	—	Not Occupied	—	—
46	0.75	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	—
47	0.5	BU/GN	4012	Low Pressure Exhaust Gas Recirculation Actuator Position Signal	I	—
48	0.5	GN/VT	4621	Local Interconnect Network Serial Data Bus 21	I	—
49	0.5	GN/WH	4622	Local Interconnect Network Serial Data Bus 22	I	—
50	—	—	—	Not Occupied	—	—
51	0.5	GN/BN	2732	Local Interconnect Network Bus 32	I	—
52	—	—	—	Not Occupied	—	—
53	0.5	BK/YE	6275	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	I	—
54	—	—	—	Not Occupied	—	—
55	0.75	BU/BN	4013	Low Pressure Exhaust Gas Recirculation Actuator Control Close	I	—
56	—	—	—	Not Occupied	—	—
57	1.5	VT/GY	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	I	—
58	1.5	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	I	—
59	1.5	GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	I	—
60	1.5	BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	I	—
61 - 67	—	—	—	Not Occupied	—	—

K20 Engine Control Module X2 (LM2) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
68	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
69	0.5	BK/GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
70	0.5	GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	I	—
71	0.5	YE/BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	I	—
72 - 73	—	—	—	Not Occupied	—	—
74	0.5	BK/BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	I	—
75	0.5	BU	6053	Exhaust Pressure Sensor Signal 1	I	—
76	0.5	BK/GN	3235	Exhaust Gas Recirculation Temperature Sensor 3 Low Reference	I	—
77	0.5	GY	23	Generator Field Duty Cycle Signal	I	—
78	0.5	BU/BK	1422	Engine Water Charge Air Coolant Temperature Signal	I	—
79 - 80	—	—	—	Not Occupied	—	—
81	0.5	BK/GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	I	—
82 - 83	—	—	—	Not Occupied	—	—
84	0.75	BN/WH	582	Throttle Actuator Control Close	I	—
85	1.5	VT/GN	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	I	—
86	1.5	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	I	—
87	1.5	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	I	—
88	1.5	WH/GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	I	—
89 - 95	—	—	—	Not Occupied	—	—
96	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—
97	0.5	BN/YE	2161	Fuel Rail Pressure Sensor 2 Signal	I	—
98 - 100	—	—	—	Not Occupied	—	—
101	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—
102	0.5	BU/WH	5277	Exhaust Gas Temperature Sensor 1	I	—
103	0.5	WH/GY	3234	Exhaust Gas Recirculation Temperature Sensor 3 Signal	I	—
104	0.5	BU/GN	5377	Exhaust Gas Temperature Sensor 2	I	—
105	0.5	BK/BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	I	—
106	0.5	GN/YE	37	Engine Metal Temperature Sensor Signal	I	—
107 - 108	—	—	—	Not Occupied	—	—
109	0.5	GY/GN	5378	Exhaust Gas Temperature Sensor 3	I	—
110	0.75	BK/BU	1408	Variable Swirl Valve Close Control	I	—
111	0.75	YE	581	Throttle Actuator Control Open	I	—
112	0.75	BK/GN	1389	Variable Swirl Valve Open Control	I	—

K20 Engine Control Module X1 (LV3)



4596458

Connector Part Information

Harness Type: Engine
OEM Connector: 33315785
Service Connector: 19368142
Description: 49-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1326030-8	Lear 17	A	4
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

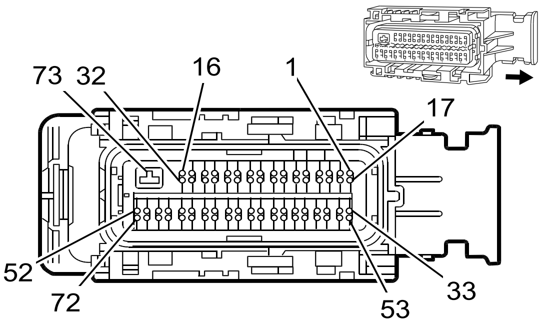
K20 Engine Control Module X1 (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/WH	492	Mass Air Flow Sensor Signal	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	II	—
4	—	—	—	Not Occupied	—	—
5	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	II	—
6	0.5	WH/BU	6311	Cruise/ETC/TCC Brake Signal	II	—
7	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
8	0.5	BN/WH	419	Check Engine Indicator Control	II	—
9	0.5	YE	5991	Powertrain Relay Coil Control	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	II	—
13	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	II	—
14	0.5	WH/GN	5380	Brake Position Sensor Signal	II	—
15	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	II	—
16	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	II	—
17	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
18	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	II	—

K20 Engine Control Module X1 (LV3) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
22	—	—	—	Not Occupied	—	—
23	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	II	—
24	0.5	BK/BU	1271	Accelerator Pedal Position Low Reference 1	II	—
25 - 27	—	—	—	Not Occupied	—	—
28	0.5	BN/GN	1174	Oil Level Switch Signal	II	—
29	—	—	—	Not Occupied	—	—
30	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	II	—
33	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	—
34	0.5	RD/BN	440	Battery Positive Voltage	II	—
35	—	—	—	Not Occupied	—	—
36	0.5	YE/BK	625	Starter Enable Relay Control	II	—
37	0.5	GN/GY	465	Fuel Pump Primary Relay Control	II	—
38	0.5	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	II	—
39	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	II	—
40	0.5	YE/BN	331	Oil Pressure Sensor Signal	II	—
41	0.5	GN	380	A/C Refrigerant Pressure Sensor Signal	II	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	GN/WH	1162	Accelerator Pedal Position Signal 2	II	—
45	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
46	0.5	YE	4063	Hood Status A Signal	II	—
47	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	II	—
48	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
49	2	VT/BU	5290	Powertrain Main Relay Fused Supply 1	I	—

K20 Engine Control Module X2 (LV3)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15499466
Service Connector: 88988931
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1326030-8	Lear 17	4	D
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

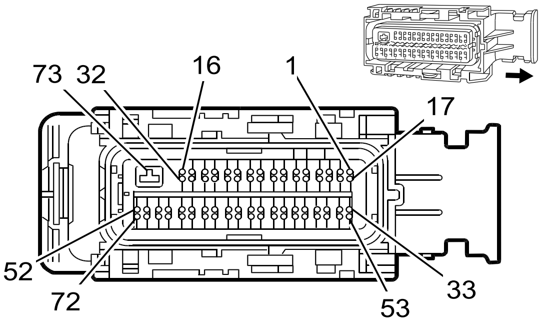
K20 Engine Control Module X2 (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/YE	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	GN/WH	4622	Local Interconnect Network Serial Data Bus 22	II	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT/GY	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	II	—
11	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	II	—
12	—	—	—	Not Occupied	—	—
13	0.5	GN/BU	2123	Ignition Control 3	II	—
14 - 15	—	—	—	Not Occupied	—	—
16	0.5	VT/BU	5290	Powertrain Main Relay Fused Supply 1	II	—
17	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	II	—
18 - 20	—	—	—	Not Occupied	—	—
21	0.5	WH/BN	2203	Enhanced Driver Mode 2 Switch Signal	II	—
22 - 25	—	—	—	Not Occupied	—	—
26	0.5	VT/WH	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	II	—
27	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	II	—
28	—	—	—	Not Occupied	—	—
29	0.5	BU/WH	2122	Ignition Control 2	II	—
30	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	II	—
31 - 32	—	—	—	Not Occupied	—	—
33	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	II	—
34	—	—	—	Not Occupied	—	—
35	0.5	BU	179	Oil Pump Command Signal	II	—
36	—	—	—	Not Occupied	—	—
37	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	II	—
38	—	—	—	Not Occupied	—	—
39	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	II	—
40 - 45	—	—	—	Not Occupied	—	—
46	0.5	YE/BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	II	—
47	0.5	VT/GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	II	—

K20 Engine Control Module X2 (LV3) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
48 - 49	—	—	—	Not Occupied	—	—
50	0.75	BK/GY	2303	Knock Sensor Low Reference 2	II	—
51	0.75	BK/YE	1716	Knock Sensor Low Reference 1	II	—
52	0.5	BN/WH	582	Throttle Actuator Control Close	II	—
53	0.5	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	II	—
54 - 58	—	—	—	Not Occupied	—	—
59	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	II	—
60 - 65	—	—	—	Not Occupied	—	—
66	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	II	—
67	0.5	VT/BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	II	—
68 - 69	—	—	—	Not Occupied	—	—
70	0.75	WH/GY	1876	Knock Sensor Signal 2	II	—
71	0.75	VT/GY	496	Knock Sensor Signal 1	II	—
72	0.5	YE	581	Throttle Actuator Control Open	II	—
73	2.5	BK/WH	451	Signal Ground	I	—

K20 Engine Control Module X3 (LV3)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15497996
Service Connector: 88988372
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1326030-8	Lear 17	A	4
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

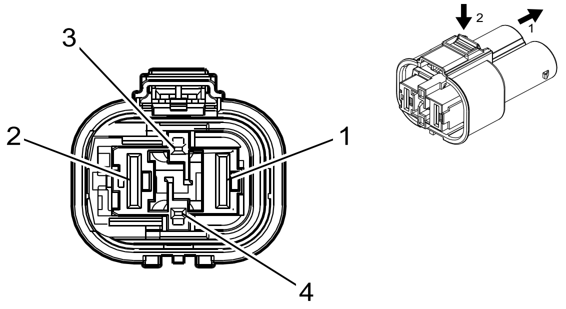
K20 Engine Control Module X3 (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
5	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	II	—
6	0.5	VT/GN	4320	Powertrain Sensor Bus Enable	II	—
7	—	—	—	Not Occupied	—	—
8	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	II	—
9	0.5	GY/BU	5300	Camshaft Position Intake Sensor Control 1	II	—
10	0.5	GN	6271	Crankshaft 60X Sensor Signal	II	—
11	0.5	VT/BU	6091	Crankshaft Position Sensor Replicated Signal	II	—
12	0.5	YE/BU	2124	Ignition Control 4	II	—
13	0.5	BN/BU	2126	Ignition Control 6	II	—
14	0.5	BN	25	Charge Indicator Control	II	—
15	—	—	—	Not Occupied	—	—
16	0.75	YE	7301	High Pressure Fuel Pump Actuator High - Control	II	—
17 - 18	—	—	—	Not Occupied	—	—
19	0.5	BN/WH	6354	Output Speed High (Replicated TOS) Input Signal	II	—
20	—	—	—	Not Occupied	—	—
21	0.5	BK/BN	6753	Cam Phaser W Low Reference	II	—
22 - 23	—	—	—	Not Occupied	—	—
24	0.5	BK/GN	5301	Camshaft Position Intake Sensor Low Reference 1	II	—
25	0.5	VT/BU	6270	Crankshaft 60X Sensor 5V Reference	II	—
26	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	II	—
27	—	—	—	Not Occupied	—	—
28	0.5	BU/GY	2125	Ignition Control 5	II	—
29	0.5	BU/VT	2121	Ignition Control 1	II	—
30	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	II	—
31	—	—	—	Not Occupied	—	—
32	0.75	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	II	—
33 - 35	—	—	—	Not Occupied	—	—
36	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	II	—
37	0.5	BK/GN	469	Manifold Absolute Pressure Sensor Low Reference	II	—
38 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	II	—
44	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	II	—
45 - 46	—	—	—	Not Occupied	—	—
47	0.75	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	II	—
48	0.75	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	II	—
49	0.75	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	II	—
50	0.75	WH/GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	II	—

K20 Engine Control Module X3 (LV3) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
51	0.75	VT/GN	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	II	—
52	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	II	—
53	0.5	BU	5491	Cylinder Shutoff Solenoid Control 1	II	—
54	0.5	GN	5492	Cylinder Shutoff Solenoid Control 2	II	—
55	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	II	—
56	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	II	—
57	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	II	—
58	0.5	GN/WH	432	Manifold Absolute Pressure Sensor Signal	II	—
59	—	—	—	Not Occupied	—	—
60	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	II	—
61	0.5	BU	410	Engine Coolant Temperature Sensor Signal	II	—
62	—	—	—	Not Occupied	—	—
63	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	II	—
64	0.5	GY	23	Generator Field Duty Cycle Signal	II	—
65 - 66	—	—	—	Not Occupied	—	—
67	0.75	BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	II	—
68	0.75	GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	II	—
69	0.75	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	II	—
70	0.75	GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	II	—
71	0.75	VT/GY	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	II	—
72	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	II	—
73	0.5	BK/WH	451	Signal Ground	I	—

K22 Cooling Fan Control Module (LM2)



4847569

Connector Part Information

Harness Type: Engine
OEM Connector: 33376654
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2, 9.5 MCON Series (BK)

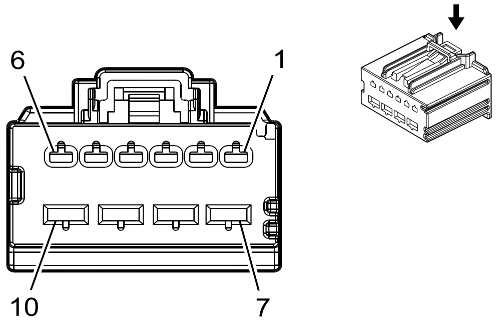
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K22 Cooling Fan Control Module (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD/VT	842	Battery Positive Voltage	I	—
2	5	BK	4450	Ground	I	—
3	0.5	BN/YE	473	High Speed Cooling Fan Relay Control	I	—
4	—	—	—	Not Occupied	—	—

K29F Seat Heating Control Module - Front X1 (KA1)



3791446

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 31372-1000
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5, 2.8 Series (BK)

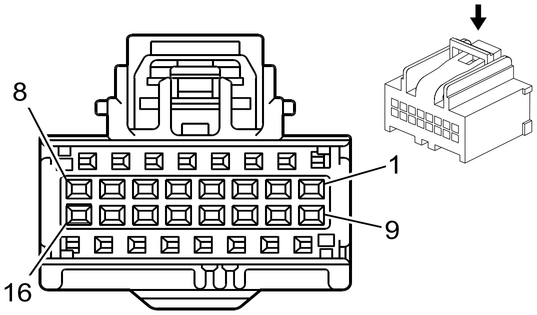
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K29F Seat Heating Control Module - Front X1 (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/BN	2481	Passenger Heated Back Element Control	I	—
2	0.75	BN/BU	2479	Passenger Heated Seat Element Control	I	—
3	0.75	GY/BK	2480	Passenger Heated Seat Element Low Reference	I	—
4	0.75	BN/BK	2078	Driver Heated Seat Element Low Reference	I	—
5	0.75	BN	2432	Driver Heated Back Element Control	I	—
6	0.75	BN/VT	2077	Driver Heated Seat Element Control	I	—
7	0.75	RD	6140	Battery Positive Voltage	I	—
8	0.75	BK	1250	Ground	I	—
9	—	—	—	Not Occupied	—	—
10	0.75	RD/GN	5140	Battery Positive Voltage	I	—

K29F Seat Heating Control Module - Front X2 (KA1)



1653409

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 7283-9076-30
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 0.64 Kaizen Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

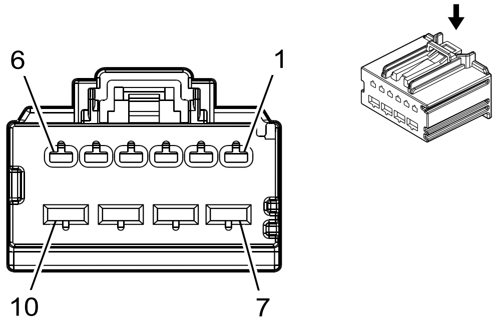
K29F Seat Heating Control Module - Front X2 (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/YE	2080	Driver Heated Seat NTC Low Reference	I	—
2	0.5	BK/GY	2435	Passenger Heated Seat NTC Low Reference	I	—
3	0.5	BU	2425	Driver Heated Back NTC Signal	I	—
4	0.5	WH/BU	2436	Passenger Heated Back NTC Signal	I	—
5	0.5	WH/GY	2434	Passenger Heated Seat NTC Signal	I	—

K29F Seat Heating Control Module - Front X2 (KA1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
6	0.5	YE/GY	2079	Driver Heated Seat NTC Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	GN/BU	6133	Local Interconnect Network Serial Data Bus 2	I	—
9	0.35	GN/VT	5906	Driver Seat Vent Motor Control 1	I	—
10	0.5	WH	5908	Passenger Seat Vent Motor Control 1	I	—
11	0.5	BK/VT	2426	Driver Heated Back NTC Low Reference	I	—
12	0.5	BK/GN	2482	Passenger Heated Back NTC Low Reference	I	—
13 - 16	—	—	—	Not Occupied	—	—

K29F Seat Heating Control Module - Front X1 (KA1/KQV)



3791446

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 31372-1000
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5, 2.8 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

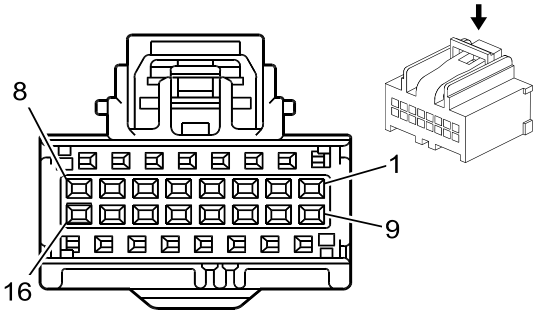
K29F Seat Heating Control Module - Front X1 (KA1/KQV)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/BN	2481	Passenger Heated Back Element Control	I	—
2	0.75	BN/BU	2479	Passenger Heated Seat Element Control	I	—
3	0.75	GY/BK	2480	Passenger Heated Seat Element Low Reference	I	—
4	0.75	BN/BK	2078	Driver Heated Seat Element Low Reference	I	—
5	0.75	BN	2432	Driver Heated Back Element Control	I	—
6	0.75	BN/VT	2077	Driver Heated Seat Element Control	I	—
7	0.75	RD	6140	Battery Positive Voltage	I	—

K29F Seat Heating Control Module - Front X1 (KA1/KQV) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
8	0.75	BK	1250	Ground	I	—
9	—	—	—	Not Occupied	—	—
10	0.75	RD/GN	5140	Battery Positive Voltage	I	—

K29F Seat Heating Control Module - Front X2 (KA1/KQV)



1653409

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 7283-9076-30
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 0.64 Kaizen Series (BK)

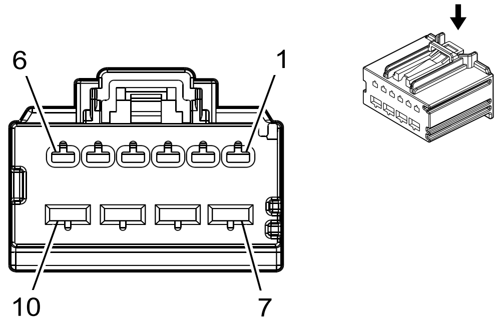
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K29F Seat Heating Control Module - Front X2 (KA1/KQV)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/YE	2080	Driver Heated Seat NTC Low Reference	I	—
2	0.5	BK/GY	2435	Passenger Heated Seat NTC Low Reference	I	—
3	0.5	BU	2425	Driver Heated Back NTC Signal	I	—
4	0.5	WH/BU	2436	Passenger Heated Back NTC Signal	I	—
5	0.5	WH/GY	2434	Passenger Heated Seat NTC Signal	I	—
6	0.5	YE/GY	2079	Driver Heated Seat NTC Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	GN/BU	6133	Local Interconnect Network Serial Data Bus 2	I	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.5	BK/VT	2426	Driver Heated Back NTC Low Reference	I	—
12	0.5	BK/GN	2482	Passenger Heated Back NTC Low Reference	I	—
13 - 16	—	—	—	Not Occupied	—	—

K29R Seat Heating Control Module - Rear X1 (KA6)



3791446

Connector Part Information

Harness Type: Left Rear Seat
OEM Connector: 31372-1000
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5, 2.8 Series (BK)

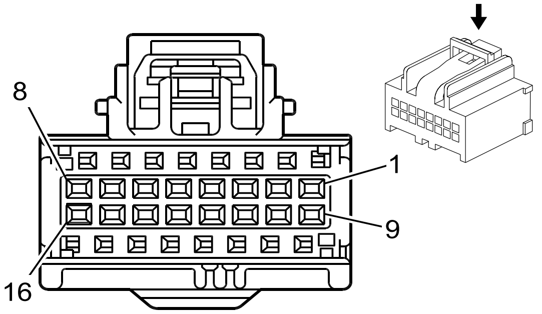
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K29R Seat Heating Control Module - Rear X1 (KA6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	GN/BN	2296	Right Rear Heated Seat Cushion Element Control	I	—
3	0.75	GN/BK	2297	Right Rear Heated Seat Cushion Element Low Reference	I	—
4	0.75	BN/BK	2295	Left Rear Heated Seat Cushion Element Low Reference	I	—
5	—	—	—	Not Occupied	—	—
6	0.75	GY	2294	Left Rear Heated Seat Cushion Element Control	I	—
7	0.75	RD/YE	240	Battery Positive Voltage	I	—
8	1	BK	1150	Ground	I	—
9	—	—	—	Not Occupied	—	—
10	0.75	RD/VT	340	Battery Positive Voltage	I	—

K29R Seat Heating Control Module - Rear X2 (KA6)



1653409

Connector Part Information

Harness Type: Left Rear Seat
OEM Connector: 15136073
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 0.64 Kaizen Series (BK)

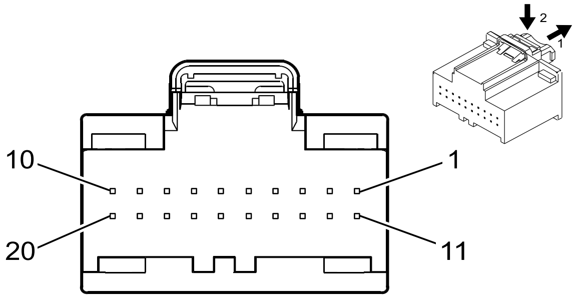
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K29R Seat Heating Control Module - Rear X2 (KA6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU/WH	7048	Left Rear Cushion NTC Low Reference	I	—
2	0.75	WH/BK	7054	Right Rear Cushion NTC Low Reference	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.75	YE/WH	7053	Right Rear Cushion NTC Signal	I	—
6	0.75	WH/BU	7047	Left Rear Cushion NTC Signal	I	—
7	0.5	BK	1150	Ground	I	—
8	0.5	GN/BU	6133	Local Interconnect Network Serial Data Bus 2	I	—
9 - 16	—	—	—	Not Occupied	—	—

K33 HVAC Control Module X1



5109511

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35162722
Service Connector: 13525993
Description: 20-Way F 0.64 Series (GN)

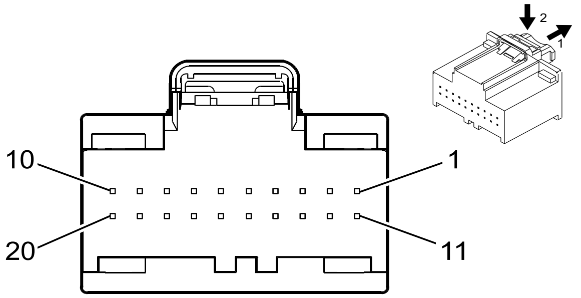
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K33 HVAC Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	GY/GN	7565	Windscreen Temp Sensor Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	BU/WH	734	Inside Air Temperature Sensor Signal	I	—
5	0.35	YE/BU	3197	Humidity Temperature Sensor Signal	I	—
6	0.35	YE/RD	597	5V Reference	I	—
7	0.35	BK/BU	7566	Humidity/Windscreen Temp Sensor Low Reference	I	—
8 - 11	—	—	—	Not Occupied	—	—
12	0.35	GY/BU	7564	Humidity Sensor Signal	I	—
13	—	—	—	Not Occupied	—	—
14	0.35	GY	590	Solar Sensor Driver Signal	I	—
15	—	—	—	Not Occupied	—	—
16	0.5	BK	1050	Ground	I	—
17 - 20	—	—	—	Not Occupied	—	—

K33 HVAC Control Module X2



5109514

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35162720
Service Connector: 13525992
Description: 20-Way F 0.64 Series (BN)

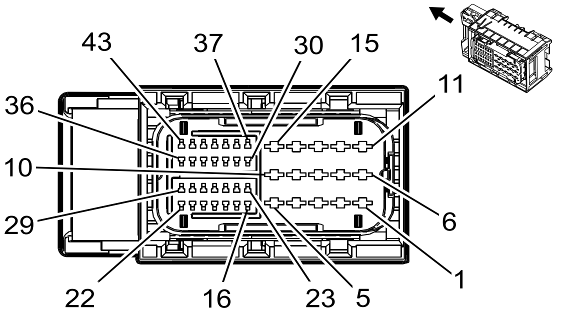
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K33 HVAC Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/VT	3340	Battery Positive Voltage	I	—
2	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	GN/YE	7531	Local Interconnect Network Serial Data Bus 9	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	GN/BU	4119	Local Interconnect Network Serial Data Bus 19	I	—
7	0.35	VT	3195	Auxiliary Heater Control	I	—
8	0.5	BK	1050	Ground	I	—
9	0.35	VT/BN	300	Run Ignition 3 Voltage	I	—
10	0.35	BU/YE	7574	Electric Variable Displacement Control	I	—
11	0.35	BU/BN	7573	Electric Variable Displacement Supply	I	—
12 - 14	—	—	—	Not Occupied	—	—
15	0.35	BU/GY	754	Blower Motor Speed Control	I	—
16 - 17	—	—	—	Not Occupied	—	—
18	0.35	BK/GN	7567	Solar Sensor Low Reference	I	—
19	0.5	BN/VT	193	Rear Defog Relay Control	I	—
20	—	—	—	Not Occupied	—	—

K34 Glow Plug Control Module X2 (LM2)



3553744

Connector Part Information

Harness Type: Engine
OEM Connector: 13699580
Service Connector: 13576417
Description: 43-Way F 1.2, 2.8 Series, Sealed (BK)

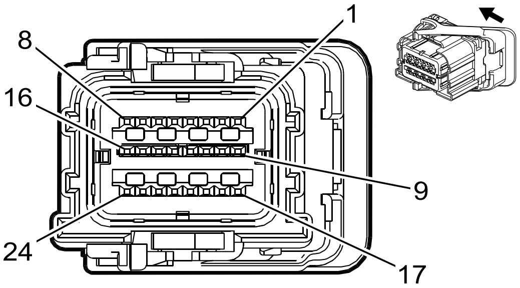
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K34 Glow Plug Control Module X2 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	2.5	GY/YE	1584	Glow Plug Control 4	I	—
3	2.5	GY/GN	1583	Glow Plug Control 3	I	—
4	2.5	GY/BN	1582	Glow Plug Control 2	I	—
5	2.5	GY/BU	1581	Glow Plug Control 1	I	—
6 - 9	—	—	—	Not Occupied	—	—
10	2.5	BK/WH	4451	—	I	—
11	—	—	—	Not Occupied	—	—
12	2.5	GY/WH	1585	Glow Plug Control 5	I	—
13	2.5	GY/VT	1586	Glow Plug Control 6	I	—
14 - 17	—	—	—	Not Occupied	—	—
18	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
19	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
20 - 24	—	—	—	Not Occupied	—	—
25	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
26	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
27 - 32	—	—	—	Not Occupied	—	—
33	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	I	—
34 - 39	—	—	—	Not Occupied	—	—
40	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
41 - 43	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1 (Crew Cab)



3240106

Connector Part Information

Harness Type: Body
OEM Connector: 13887360
Service Connector: 19328755
Description: 24-Way F 0.64 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

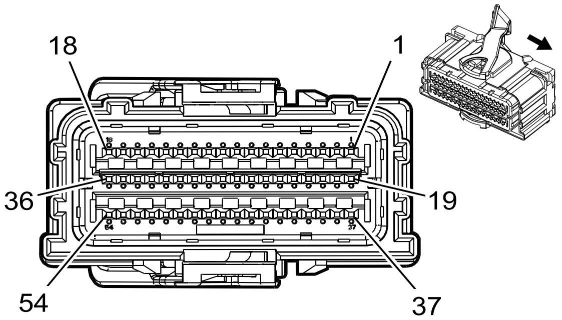
K36 Inflatable Restraint Sensing and Diagnostic Module X1 (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	OG/GN	3023	Steering Wheel Module Stage 2 High Control	I	—
2	0.35	WH/OG	3022	Steering Wheel Module Stage 2 Low Control	I	—
3	0.35	BN/OG	3020	Steering Wheel Module Stage 1 Low Control	I	—
4	0.35	OG/VT	3021	Steering Wheel Module Stage 1 High Control	I	—
5	0.35	YE/OG	3025	Passenger IP Module Stage 1 High Control	I	—
6	0.35	OG/WH	3024	Passenger IP Module Stage 1 Low Control	I	—
7	0.35	OG/VT	3026	Passenger IP Module Stage 2 Low Control	I	—
8	0.35	GY/OG	3027	Passenger IP Module Stage 2 High Control	I	—
9	0.5	RD/GN	4440	Battery Positive Voltage	I	—
10	0.35	VT/WH	5234	Passenger Seat Belt Indicator Control	I	—
11	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
12	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	—
13	0.5	BU/WH	3119	Roof Rail Air Bag Defeat Switch Signal	I	—
14	0.5	BN/WH	3895	Roof Rail Air Bag Defeat Switch Low Reference	I	—
15	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
16	—	—	—	Not Occupied	—	—
17	0.35	WH/BU	5986	Serial Data Communication Enable	I	—
18	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
19	0.75	BK/WH	2551	Signal Ground	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1 (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
21 - 24	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2 (Crew Cab)



2817420

Connector Part Information

Harness Type: Body
OEM Connector: 13944372
Service Connector: 19303770
Description: 54-Way F 0.64 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

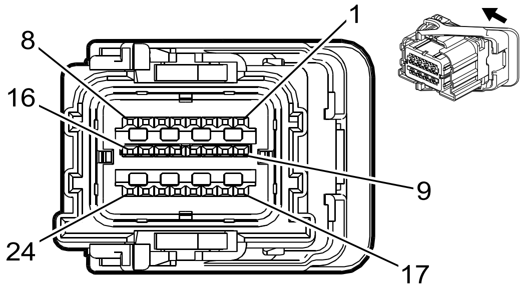
K36 Inflatable Restraint Sensing and Diagnostic Module X2 (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 8	—	—	—	Not Occupied	—	—
9	0.5	OG/YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	—
10	0.5	YE/OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	—
11	0.5	GY/OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	—
12	0.5	OG/BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	—
13	0.5	OG/BU	3068	Driver Side Impact Module High Control	I	—
14	0.5	GN/OG	3069	Driver Side Impact Module Low Control	I	—
15	0.35	BN/OG	3067	Passenger Side Impact Module Low Control	I	—
16	0.35	OG/GY	3066	Passenger Side Impact Module High Control	I	—
17 - 18	—	—	—	Not Occupied	—	—
19	0.35	OG/GN	2132	Left Front Side Impact Sensing Module Signal	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2 (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	0.35	BK/OG	6628	Left Front Side Impact Sensing Module Low Reference	I	—
21	0.35	BK/OG	6629	Right Front Side Impact Sensing Module Low Reference	I	—
22	0.35	BN/OG	2134	Right Front Side Impact Sensing Module Signal	I	—
23	0.5	OG/YE	354	Left Front Discriminating Sensor Signal	I	—
24	0.5	BK/OG	5045	Left Front Discriminating Sensor Low Reference	I	—
25	0.5	BK/OG	5600	Right Front Discriminating Sensor Low Reference	I	—
26	0.5	OG/GN	1409	Right Front Discriminating Sensor Signal	I	—
27	0.35	OG/BU	6622	Left Rear Side Impact Sensing Module Signal	I	—
28	0.35	BK/OG	6623	Left Rear Side Impact Sensing Module Low Reference	I	—
29	0.35	BK/OG	6627	Right Rear Side Impact Sensing Module Low Reference	I	—
30	0.35	OG/WH	6626	Right Rear Side Impact Sensing Module Signal	I	—
31 - 40	—	—	—	Not Occupied	—	—
41	0.35	OG/BN	238	Driver Seat Belt Switch Signal	I	—
42	0.35	OG/GN	5055	Driver Seat Position Switch Signal	I	—
43	0.35	BK/OG	1363	Driver Seat Belt Switch Low Reference	I	—
44	0.35	BK/OG	1361	Passenger Seat Belt Switch Low Reference	I	—
45	0.35	OG/VT	1362	Passenger Seat Belt Switch Signal	I	—
46 - 54	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1 (Extended Cab)



3240106

Connector Part Information

Harness Type: Body
OEM Connector: 35036798
Service Connector: 84769281
Description: 24-Way F 0.64 Series, Sealed (YE)

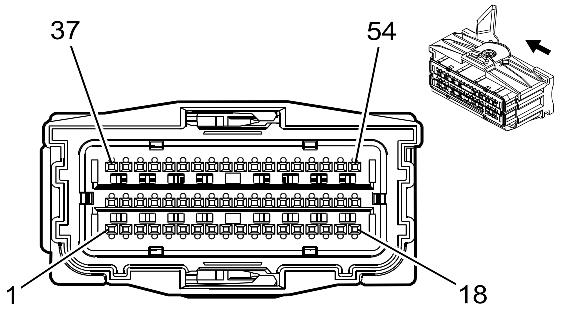
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K36 Inflatable Restraint Sensing and Diagnostic Module X1 (Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	OG/GN	3023	Steering Wheel Module Stage 2 High Control	I	—
2	0.35	WH/OG	3022	Steering Wheel Module Stage 2 Low Control	I	—
3	0.35	BN/OG	3020	Steering Wheel Module Stage 1 Low Control	I	—
4	0.35	OG/VT	3021	Steering Wheel Module Stage 1 High Control	I	—
5	0.35	YE/OG	3025	Passenger IP Module Stage 1 High Control	I	—
6	0.35	OG/WH	3024	Passenger IP Module Stage 1 Low Control	I	—
7	0.35	OG/VT	3026	Passenger IP Module Stage 2 Low Control	I	—
8	0.35	GY/OG	3027	Passenger IP Module Stage 2 High Control	I	—
9	0.5	RD/GN	4440	Battery Positive Voltage	I	—
10	0.35	VT/WH	5234	Passenger Seat Belt Indicator Control	I	—
11	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
12	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	—
13	0.5	BU/WH	3119	Roof Rail Air Bag Defeat Switch Signal	I	—
14	0.5	BN/WH	3895	Roof Rail Air Bag Defeat Switch Low Reference	I	—
15	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
16	—	—	—	Not Occupied	—	—
17	0.35	WH/BU	5986	Serial Data Communication Enable	I	—
18	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
19	0.75	BK/WH	2551	Signal Ground	I	—
20	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
21 - 24	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2 (Extended Cab)



5197939

Connector Part Information

Harness Type: Body

OEM Connector: 35036051

Service Connector: 84769282
Description: 54-Way F 0.64 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

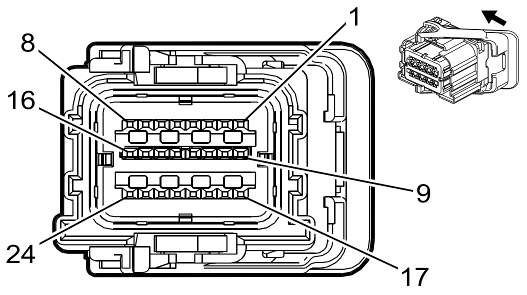
K36 Inflatable Restraint Sensing and Diagnostic Module X2 (Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 8	—	—	—	Not Occupied	—	—
9	0.5	OG/YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	—
10	0.5	YE/OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	—
11	0.5	GY/OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	—
12	0.5	OG/BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	—
13	0.5	OG/BU	3068	Driver Side Impact Module High Control	I	—
14	0.5	GN/OG	3069	Driver Side Impact Module Low Control	I	—
15	0.35	BN/OG	3067	Passenger Side Impact Module Low Control	I	—
16	0.35	OG/GY	3066	Passenger Side Impact Module High Control	I	—
17	0.5	OG/GN	5019	Left Front Head Curtain Module High Control	I	—
18	0.5	VT/OG	5020	Left Front Head Curtain Module Low Control	I	—
19	0.35	OG/GN	2132	Left Front Side Impact Sensing Module Signal	I	—
20	0.35	BK/OG	6628	Left Front Side Impact Sensing Module Low Reference	I	—
21	0.35	BK/OG	6629	Right Front Side Impact Sensing Module Low Reference	I	—
22	0.35	BN/OG	2134	Right Front Side Impact Sensing Module Signal	I	—
23	0.5	OG/YE	354	Left Front Discriminating Sensor Signal	I	—
24	0.5	BK/OG	5045	Left Front Discriminating Sensor Low Reference	I	—
25	0.5	BK/OG	5600	Right Front Discriminating Sensor Low Reference	I	—
26	0.5	OG/GN	1409	Right Front Discriminating Sensor Signal	I	—
27	0.35	OG/BU	6622	Left Rear Side Impact Sensing Module Signal	I	—
28	0.35	BK/OG	6623	Left Rear Side Impact Sensing Module Low Reference	I	—
29	0.35	BK/OG	6627	Right Rear Side Impact Sensing Module Low Reference	I	—
30	0.35	OG/WH	6626	Right Rear Side Impact Sensing Module Signal	I	—
31 - 36	—	—	—	Not Occupied	—	—
37	0.5	OG/WH	3477	Driver Seat Belt Retractor Pretensioner High Control	I	—
38	0.5	GY/OG	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	—
39	0.5	WH/OG	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	—
40	0.5	OG/GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2 (Extended Cab) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
41	0.35	OG/BN	238	Driver Seat Belt Switch Signal	I	—
42	—	—	—	Not Occupied	—	—
43	0.35	BK/OG	1363	Driver Seat Belt Switch Low Reference	I	—
44	0.35	BK/OG	1361	Passenger Seat Belt Switch Low Reference	I	—
45	0.35	OG/VT	1362	Passenger Seat Belt Switch Signal	I	—
46 - 52	—	—	—	Not Occupied	—	—
53	0.5	OG/GY	5021	Right Front Head Curtain Module High Control	I	—
54	0.5	WH/OG	5022	Right Front Head Curtain Module Low Control	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1 (Regular Cab)



3240106

Connector Part Information

Harness Type: Body
OEM Connector: 35036798
Service Connector: 84769281
Description: 24-Way F 0.64 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

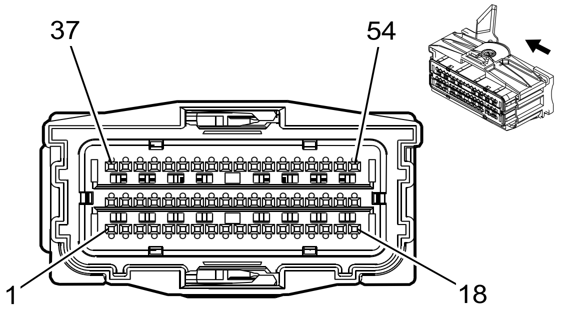
K36 Inflatable Restraint Sensing and Diagnostic Module X1 (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	OG/GN	3023	Steering Wheel Module Stage 2 High Control	I	—
2	0.35	WH/OG	3022	Steering Wheel Module Stage 2 Low Control	I	—
3	0.35	BN/OG	3020	Steering Wheel Module Stage 1 Low Control	I	—
4	0.35	OG/VT	3021	Steering Wheel Module Stage 1 High Control	I	—
5	0.35	YE/OG	3025	Passenger IP Module Stage 1 High Control	I	—
6	0.35	OG/WH	3024	Passenger IP Module Stage 1 Low Control	I	—
7	0.35	OG/VT	3026	Passenger IP Module Stage 2 Low Control	I	—
8	0.35	GY/OG	3027	Passenger IP Module Stage 2 High Control	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1 (Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
9	0.5	RD/GN	4440	Battery Positive Voltage	I	—
10	0.35	VT/WH	5234	Passenger Seat Belt Indicator Control	I	—
11	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
12	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	—
13	0.5	BU/WH	3119	Roof Rail Air Bag Defeat Switch Signal	I	—
14	0.5	BN/WH	3895	Roof Rail Air Bag Defeat Switch Low Reference	I	—
15	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
16	—	—	—	Not Occupied	—	—
17	0.35	WH/BU	5986	Serial Data Communication Enable	I	—
18	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
19	0.75	BK/WH	2551	Signal Ground	I	—
20	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
21 - 24	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2 (Regular Cab)



5197939

Connector Part Information

Harness Type: Body
OEM Connector: 35036051
Service Connector: 84769282
Description: 54-Way F 0.64 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

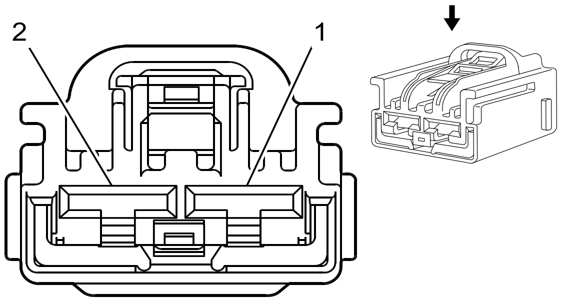
K36 Inflatable Restraint Sensing and Diagnostic Module X2 (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 8	—	—	—	Not Occupied	—	—
9	0.5	OG/YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2 (Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
10	0.5	YE/OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	—
11	0.5	GY/OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	—
12	0.5	OG/BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	—
13	0.5	OG/BU	3068	Driver Side Impact Module High Control	I	—
14	0.5	GN/OG	3069	Driver Side Impact Module Low Control	I	—
15	0.35	BN/OG	3067	Passenger Side Impact Module Low Control	I	—
16	0.35	OG/GY	3066	Passenger Side Impact Module High Control	I	—
17	0.5	OG/GN	5019	Left Front Head Curtain Module High Control	I	—
18	0.5	VT/OG	5020	Left Front Head Curtain Module Low Control	I	—
19	0.35	OG/GN	2132	Left Front Side Impact Sensing Module Signal	I	—
20	0.35	BK/OG	6628	Left Front Side Impact Sensing Module Low Reference	I	—
21	0.35	BK/OG	6629	Right Front Side Impact Sensing Module Low Reference	I	—
22	0.35	BN/OG	2134	Right Front Side Impact Sensing Module Signal	I	—
23	0.5	OG/YE	354	Left Front Discriminating Sensor Signal	I	—
24	0.5	BK/OG	5045	Left Front Discriminating Sensor Low Reference	I	—
25	0.5	BK/OG	5600	Right Front Discriminating Sensor Low Reference	I	—
26	0.5	OG/GN	1409	Right Front Discriminating Sensor Signal	I	—
27 - 36	—	—	—	Not Occupied	—	—
37	0.5	OG/WH	3477	Driver Seat Belt Retractor Pretensioner High Control	I	—
38	0.5	GY/OG	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	—
39	0.5	WH/OG	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	—
40	0.5	OG/GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	—
41	0.35	OG/BN	238	Driver Seat Belt Switch Signal	I	—
42	—	—	—	Not Occupied	—	—
43	0.35	BK/OG	1363	Driver Seat Belt Switch Low Reference	I	—
44	0.35	BK/OG	1361	Passenger Seat Belt Switch Low Reference	I	—
45	0.35	OG/VT	1362	Passenger Seat Belt Switch Signal	I	—
46 - 52	—	—	—	Not Occupied	—	—
53	0.5	OG/GY	5021	Right Front Head Curtain Module High Control	I	—
54	0.5	WH/OG	5022	Right Front Head Curtain Module Low Control	I	—

K40 Seat Memory Control Module X1 (A45)



1817814

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 7283-6458-40
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 6.3 Series (L-GY)

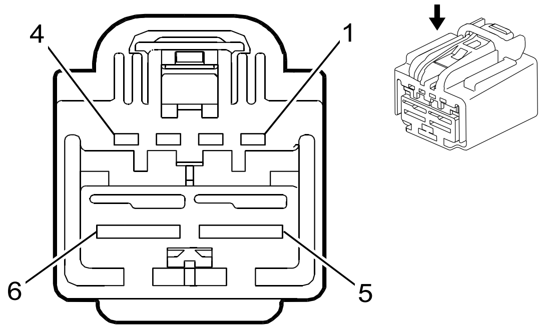
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K40 Seat Memory Control Module X1 (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/BN	1140	Battery Positive Voltage	I	—
2	2.5	RD/YE	5040	Battery Positive Voltage	I	—

K40 Seat Memory Control Module X2 (A45)



1798802

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 7283-9749-30
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F YESC Kaizen Series (BK)

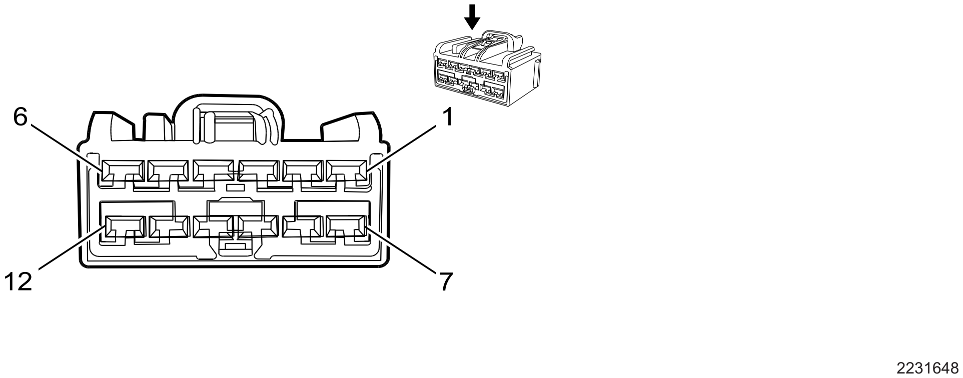
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K40 Seat Memory Control Module X2 (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	GN/WH	7530	Local Interconnect Network Serial Data Bus 8	I	—
4	—	—	—	Not Occupied	—	—
5	2.5	BK	1150	Ground	I	—
6	—	—	—	Not Occupied	—	—

K40 Seat Memory Control Module X3 (A45)



Connector Part Information

Harness Type: Driver Seat
OEM Connector: 7283-6467-40
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 2.8 Kaizen Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

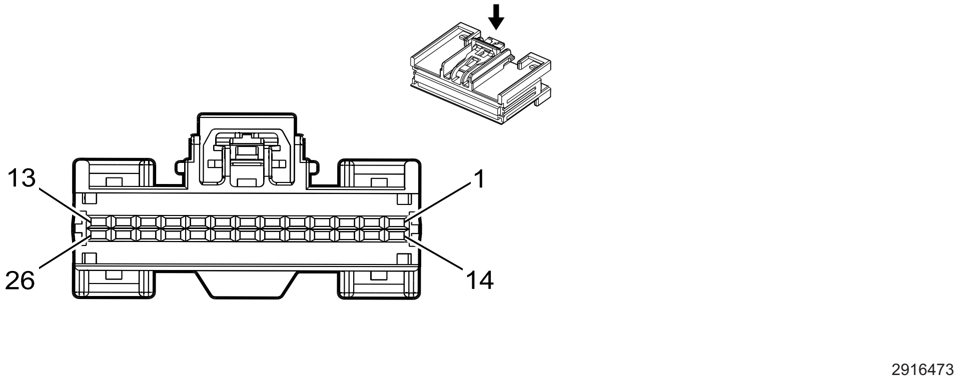
K40 Seat Memory Control Module X3 (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/YE	276	Driver Power Seat Recline Motor Forward Control	I	—
2	1.5	BU/YE	277	Driver Power Seat Recline Motor Rearward Control	I	—

K40 Seat Memory Control Module X3 (A45) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	1.5	GN/BN	286	Driver Power Seat Front Vertical Motor Up Control	I	—
4	1.5	BU/VT	287	Driver Power Seat Front Vertical Motor Down Control	I	—
5	1.5	YE	282	Driver Power Seat Rear Vertical Motor Up Control	I	—
6	1.5	GY/BU	283	Driver Power Seat Rear Vertical Motor Down Control	I	—
7 - 10	—	—	—	Not Occupied	—	—
11	1.5	YE/BU	285	Driver Power Seat Horizontal Motor Forward Control	I	—
12	1.5	GY/GN	284	Driver Power Seat Horizontal Motor Rearward Control	I	—

K40 Seat Memory Control Module X5 (A45)



Connector Part Information

Harness Type: Driver Seat
OEM Connector: 7287-2043-30
Service Connector: Service by Harness - See Part Catalog
Description: 26-Way F 0.64 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

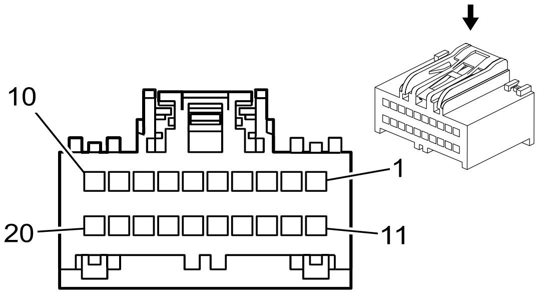
K40 Seat Memory Control Module X5 (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/RD	3298	Memory Sensor High Reference 2	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BN	3038	Right Rear Haptic Seat Motor Control	I	—
5	0.5	YE/BN	3037	Left Rear Haptic Seat Motor Control	I	—
6	—	—	—	Not Occupied	—	—

K40 Seat Memory Control Module X5 (A45) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
7	0.5	YE/BN	1522	Power Seat Horizontal Forward Switch Signal	I	—
8	0.5	GY/GN	1523	Power Seat Horizontal Rearward Switch Signal	I	—
9	0.5	GN/BN	1518	Power Seat Front Vertical Up Switch Signal	I	—
10	0.5	BU/VT	1520	Power Seat Front Vertical Down Switch Signal	I	—
11	0.5	GN	569	Memory Seat Horizontal Motor Position Sensor Signal	I	—
12	0.5	BN/WH	557	Memory Seat Front Vertical Motor Position Sensor Signal	I	—
13 - 18	—	—	—	Not Occupied	—	—
19	0.5	YE	1519	Power Seat Rear Vertical Up Switch Signal	I	—
20	0.5	YE/BU	1521	Power Seat Rear Vertical Down Switch Signal	I	—
21	0.5	GY/BK	1269	Power Seat Recline Forward Switch Signal	I	—
22	0.5	GN/GY	1270	Power Seat Recline Rearward Switch Signal	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.5	YE/BU	568	Memory Seat Rear Vertical Motor Position Sensor Signal	I	—
26	0.5	WH/BK	570	Driver Memory Seat Recline Motor Position Sensor Signal	I	—

K40 Seat Memory Control Module X6 (A45)



1715228

Connector Part Information

Harness Type: Driver Seat

OEM Connector: 31410-0201

Service Connector: Service by Harness - See Part Catalog

Description: 20-Way F USCAR 64 Series (GY)

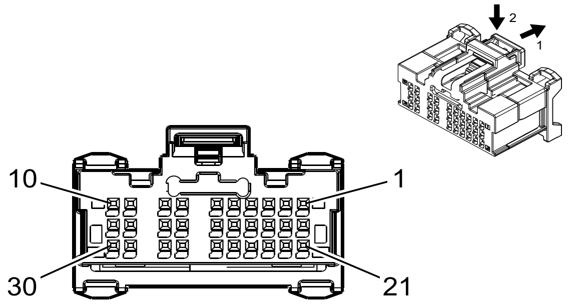
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K40 Seat Memory Control Module X6 (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 10	—	—	—	Not Occupied	—	—
11	0.5	BK/BU	5978	Memory Switch Low Reference	I	—
12	0.5	WH	615	Memory Seat Switch Signal 1	I	—
13 - 14	—	—	—	Not Occupied	—	—
15	0.5	BU/GN	614	Memory Seat Switch Set Signal	I	—
16 - 20	—	—	—	Not Occupied	—	—

K56 Serial Data Gateway Module X1



4900333

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35077574
Service Connector: 13519319
Description: 30-Way F 0.5 MQS Series (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

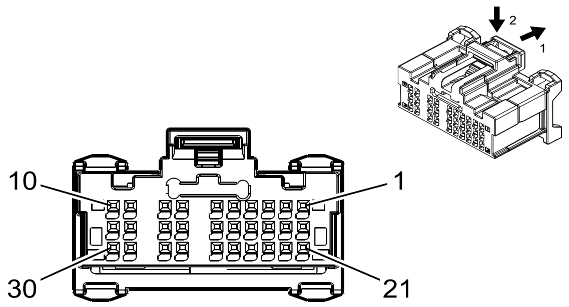
K56 Serial Data Gateway Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/VT	3340	Battery Positive Voltage	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	—
5	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	BK/WH	1851	Signal Ground	I	—
8	0.35	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
9	0.35	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
10 - 12	—	—	—	Not Occupied	—	—
13	0.35	BU/WH	2089	High Speed GMLAN Serial Data (+)(13)	I	—

K56 Serial Data Gateway Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
14	0.35	WH	2090	High Speed GMLAN Serial Data (-)(13)	I	—
15	0.35	BU/BK	1978	High Speed GMLAN Serial Data (+)(11)	I	—
16	0.35	WH	1979	High Speed GMLAN Serial Data (-)(11)	I	—
17	0.35	BU/BN	1980	High Speed GMLAN Serial Data (+)(12)	I	—
18	0.35	WH	1981	High Speed GMLAN Serial Data (-)(12)	I	—
19	—	—	—	Not Occupied	—	—
20	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
21 - 25	—	—	—	Not Occupied	—	—
26	0.35	GN/WH	2100	Low Speed GMLAN Serial Data #3	I	—
27 - 29	—	—	—	Not Occupied	—	—
30	0.35	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—

K56 Serial Data Gateway Module X2



4897967

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35074169
Service Connector: 13519320
Description: 30-Way F 0.5 MQS Series (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

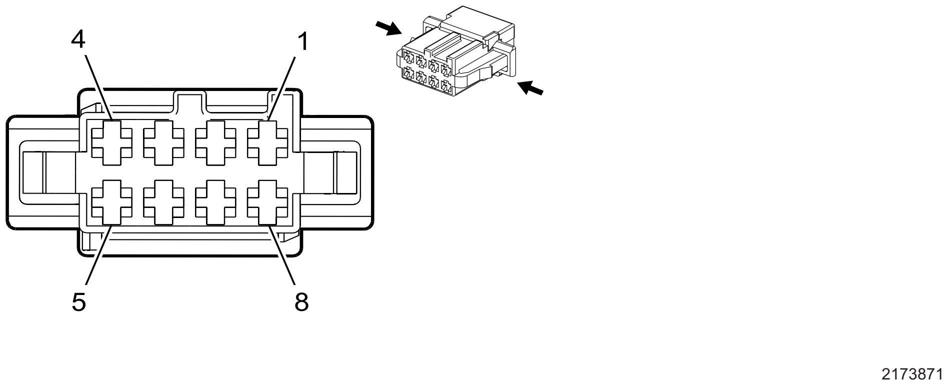
K56 Serial Data Gateway Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.35	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
5	0.35	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
6	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	—
7	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	—

K56 Serial Data Gateway Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
8	0.35	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
9	0.35	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
10	0.35	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
11 - 13	—	—	—	Not Occupied	—	—
14	0.35	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
15	0.35	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
16	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	—
17	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	—
18	0.35	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
19	0.35	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
20	0.35	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
21 - 22	—	—	—	Not Occupied	—	—
23	0.35	VT/BK	1639	Run/Crank Ignition 1 Voltage	I	—
24	—	—	—	Not Occupied	—	—
25	0.35	WH/BU	5986	Serial Data Communication Enable	I	—
26 - 30	—	—	—	Not Occupied	—	—

K60 Steering Column Lock Module



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10718780
Service Connector: 13576545
Description: 8-Way F 1.6 Micro-Timer Series (BK)

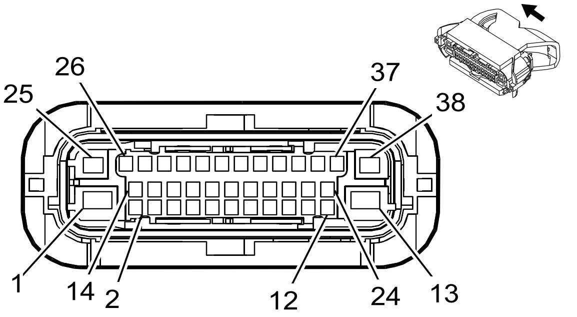
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K60 Steering Column Lock Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	BU/VT	5904	Steering Column Lock Status Signal	I	—
3	0.35	BU/VT	807	OFF /Accessory Ignition Voltage	I	—
4	0.35	GN/VT	1601	Steering Column Lock Signal	I	—
5	0.5	RD/GY	4140	Battery Positive Voltage	I	—
6	0.35	BK	1850	Ground	I	—
7	0.35	BK/WH	1851	Signal Ground	I	—
8	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—

K69 Transfer Case Control Module (NP0/NQH)



3240112

Connector Part Information

Harness Type: Engine
OEM Connector: 33110415
Service Connector: 19353395
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK with BU Inner Connector)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1241374-1	Lear 17	E	2
II	19371240	J-35616-16 (LT GN)	J-38125-215A	1241408-1	Lear 28	B	G
III	19371240	J-35616-16 (LT GN)	J-38125-215A	1-968857-3	Lear 7	C	1
IV	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K69 Transfer Case Control Module (NP0/NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	RD/GY	1342	Battery Positive Voltage	II	—
2	—	—	—	Not Occupied	—	—

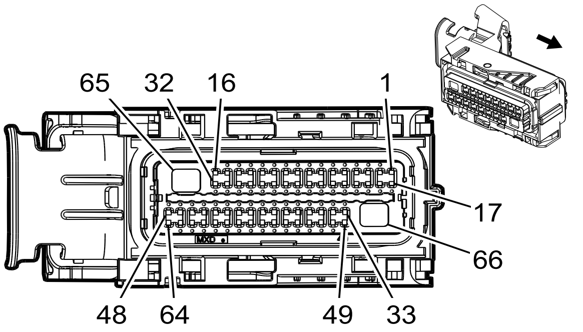
K69 Transfer Case Control Module (NP0/NQH) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	IV	—
4	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	IV	—
5	0.5	WH/GN	7479	Rotary Position Sensor Signal	I	—
	0.5	WH/GN	7479	Rotary Position Sensor Signal	IV	—
6	—	—	—	Not Occupied	—	—
7	0.5	YE	7474	Incremental Encoder Direction Signal	I	—
	0.5	YE	7474	Incremental Encoder Direction Signal	IV	—
8	—	—	—	Not Occupied	—	—
9	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator Control	IV	—
	0.5	YE/WH	1695	Four Wheel Drive Wheel Lock Indicator Control	I	—
10	0.5	BN	1560	Neutral Indicator Control	IV	—
	0.5	BN	1560	Neutral Indicator Control	I	—
11	—	—	—	Not Occupied	—	—
12	0.5	GY/BK	1570	Front Axle Actuator Control	I	—
	0.5	GY/BK	1570	Front Axle Actuator Control	IV	—
13	4	YE/VT	1553	Transfer Case Motor Counter Clockwise Control	II	—
14	—	—	—	Not Occupied	—	—
15	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	IV	—
	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
16	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	IV	—
	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	WH/BU	5986	Serial Data Communication Enable	I	—
	0.5	WH/BU	5986	Serial Data Communication Enable	IV	—
19	0.5	BU/GY	7473	Incremental Encoder Impulse Signal	IV	—
	0.5	BU/GY	7473	Incremental Encoder Impulse Signal	I	—
20	0.5	WH/RD	7477	Rotary Position Sensor 5V Reference	IV	—
	0.5	WH/RD	7477	Rotary Position Sensor 5V Reference	I	—
21 - 23	—	—	—	Not Occupied	—	—
24	0.5	GN	953	—	I	—
	0.5	GN	953	—	IV	—
25	2.5	BK	4450	Ground	III	—
	2.5	BK	4450	Ground	IV	—
26	—	—	—	Not Occupied	—	—
27	0.5	GN	951	Knock Sensor Shield	I	—
	0.5	GN	951	Knock Sensor Shield	IV	—
28 - 29	—	—	—	Not Occupied	—	—
30	0.5	YE/BK	7478	Rotary Position Sensor Low Reference	IV	—
	0.5	YE/BK	7478	Rotary Position Sensor Low Reference	I	—
31	0.5	WH/GN	7475	Incremental Encoder Sensor 8V Reference	IV	—
	0.5	WH/GN	7475	Incremental Encoder Sensor 8V Reference	I	—
32	—	—	—	Not Occupied	—	—
33	0.75	BK	952	—	IV	—
	0.75	BK	952	—	I	—
34	0.75	YE/BN	1569	Transfer Case Lock Solenoid Control	IV	—
	0.75	YE/BN	1569	Transfer Case Lock Solenoid Control	I	—

K69 Transfer Case Control Module (NP0/NQH) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
35	—	—	—	Not Occupied	—	—
36	0.5	VT	7476	Incremental Encoder Sensor Low Reference	IV	—
	0.5	VT	7476	Incremental Encoder Sensor Low Reference	I	—
37	—	—	—	Not Occupied	—	—
38	2.5	YE/GY	1552	Transfer Case Motor Clockwise Control	IV	—
	2.5	YE/GY	1552	Transfer Case Motor Clockwise Control	III	—

K71 Transmission Control Module (MQB)



4024881

Connector Part Information

Harness Type: Engine
OEM Connector: 33344977
Service Connector: 19330900
Description: 66-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

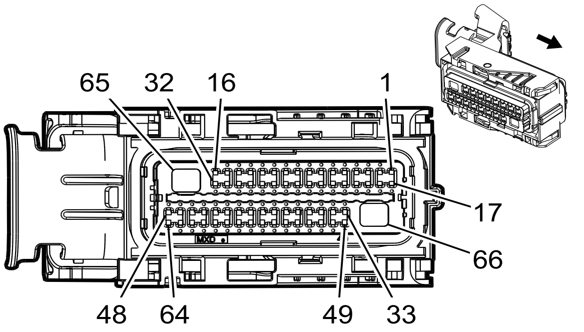
K71 Transmission Control Module (MQB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/WH	422	Torque Converter Clutch Solenoid Control	I	—
2	0.5	GY/GN	6403	Clutch D Control	I	—
3	0.5	WH/BU	4507	Transmission Clutch H Control	I	—
4	0.5	WH	4508	Transmission Clutch G Control	I	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.5	YE/GN	4170	Transmission Position Sensor B 9V Reference	I	—
8	0.5	YE/BU	4171	Transmission Position Sensor A 9V Reference	I	—
9 - 11	—	—	—	Not Occupied	—	—
12	0.5	GN/YE	6353	Input Speed Signal	I	—
13	0.5	GN/VT	4510	Transmission Intermediate Speed Signal	I	—

K71 Transmission Control Module (MQB) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
14	0.5	GY/BU	6358	Output Speed Signal	I	—
15	0.5	BN/WH	6254	Transmission Input Speed Sensor Signal	I	—
16	—	—	—	Not Occupied	—	—
17	0.5	GN/WH	1530	Transmission Mainline Pressure Solenoid Control	I	—
18	0.5	YE/BN	6404	Clutch E Control	I	—
19	0.5	GY	6402	Clutch C Control	I	—
20	0.5	VT	4509	Transmission Clutch F Control	I	—
21	—	—	—	Not Occupied	—	—
22	0.5	GN/BK	7819	Default Disable Solenoid Control	I	—
23	—	—	—	Not Occupied	—	—
24	0.5	GN/WH	2968	Transmission Auxiliary Oil Pump Control	I	—
25 - 27	—	—	—	Not Occupied	—	—
28	0.5	BK/BN	586	Transmission Oil Temperature Sensor Low Reference	I	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	GN/GY	6387	Transmission High Side Driver 1 Signal Driver	I	—
34	—	—	—	Not Occupied	—	—
35	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	—
36	—	—	—	Not Occupied	—	—
37	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
38	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
39 - 48	—	—	—	Not Occupied	—	—
49	0.5	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—
50	—	—	—	Not Occupied	—	—
51	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
52	—	—	—	Not Occupied	—	—
53	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
54	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
55 - 62	—	—	—	Not Occupied	—	—
63	0.5	BN/WH	585	Transmission Oil Temperature Sensor Signal	I	—
64	0.5	VT/BU	5724	Ignition Mode Switch Mode Control	I	MQB
	0.5	GN/YE	5724	Ignition Mode Switch Mode Control	I	MQB/MGM/MGU
65	1.5	BK/WH	451	Signal Ground	I	MQB
	1.5	BK/WH	451	Signal Ground	I	MQE
66	1.5	RD/GN	1840	Battery Positive Voltage	I	MQB
	1.5	RD/GN	1840	Battery Positive Voltage	I	MQE

K71 Transmission Control Module (MQE)



4024881

Connector Part Information

Harness Type: Engine
OEM Connector: 33344977
Service Connector: 19330900
Description: 66-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

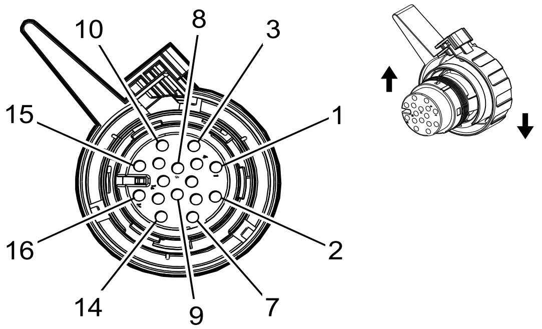
K71 Transmission Control Module (MQE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BU	4507	Transmission Clutch H Control	I	—
2	0.5	BU	6401	Clutch B Control	I	—
3	0.5	GN/WH	1530	Transmission Mainline Pressure Solenoid Control	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	YE/GN	4170	Transmission Position Sensor B 9V Reference	I	—
8	0.5	YE/BU	4171	Transmission Position Sensor A 9V Reference	I	—
9 - 12	—	—	—	Not Occupied	—	—
13	0.5	GN/VT	4510	Transmission Intermediate Speed Signal	I	—
14	0.5	GY/BU	6358	Output Speed Signal	I	—
15	0.5 0.5	GN/YE BN/WH	6254 6254	Transmission Input Speed Sensor Signal Transmission Input Speed Sensor Signal	I I	— —
16	—	—	—	Not Occupied	—	—
17	0.5	WH	4508	Transmission Clutch G Control	I	—
18	0.5	BN	6400	Clutch A Control	I	—
19	0.5	GY	6402	Clutch C Control	I	—
20	0.5	VT/WH	422	Torque Converter Clutch Solenoid Control	I	—
21	0.5	GN/WH	6380	TCC On/Off Solenoid A Control	I	—
22	0.5	YE/BN	6210	TCC On/Off Solenoid B Control	I	—
23	—	—	—	Not Occupied	—	—
24	0.5	WH/GY	4578	Surge Accumulator Solenoid Low Side Control	I	—
25 - 27	—	—	—	Not Occupied	—	—

K71 Transmission Control Module (MQE) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
28	0.5	BK/BN	586	Transmission Oil Temperature Sensor Low Reference	I	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	GN/GY	6387	Transmission High Side Driver 1 Signal Driver	I	—
34	—	—	—	Not Occupied	—	—
35	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	—
36	—	—	—	Not Occupied	—	—
37	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
38	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
39 - 48	—	—	—	Not Occupied	—	—
49	0.5	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—
50	—	—	—	Not Occupied	—	—
51	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
52	—	—	—	Not Occupied	—	—
53	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
54	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
55 - 62	—	—	—	Not Occupied	—	—
63	0.5	BN/WH	585	Transmission Oil Temperature Sensor Signal	I	—
64	0.5 0.5	BN/WH BU/WH	3338 3338	Transmission Internal Mode Switch Mode Control B Transmission Internal Mode Switch Mode Control B	I I	— MQE
65	1.5	BK/WH	451	Signal Ground	I	—
66	1.5	RD/GN	1840	Battery Positive Voltage	I	—

K71 Transmission Control Module (MYC/MYD)



3277917

Connector Part Information

Harness Type: Engine
OEM Connector: 13878751
Service Connector: 19303772
Description: 16-Way F 1.5 Series, Sealed (BK)

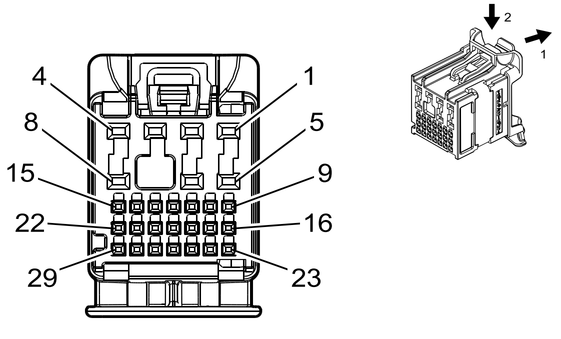
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	2 21 24 47220 0	Yazaki 12	E	1

K71 Transmission Control Module (MYC/MYD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD/GN	1840	Battery Positive Voltage	I	—
2	0.75 1	BK/WH BK/WH	451 451	Signal Ground Signal Ground	I I	— —
3	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
4	0.75	RD/GN	1840	Battery Positive Voltage	I	—
5	0.75 1	BK/WH BK/WH	451 451	Signal Ground Signal Ground	I I	— —
6 - 8	—	—	—	Not Occupied	—	—
9	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
10	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
11	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
12	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	—
13	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
14	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
15	—	—	—	Not Occupied	—	—
16	0.5	BN/WH	6354	Output Speed High (Replicated TOS) Input Signal	I	—

K73 Telematics Communication Interface Control Module X1 (UE1)



4496253

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33303954
Service Connector: 13506123
Description: 29-Way F 0.5 NANO, 1.2 MCON Series Sealed (BK)

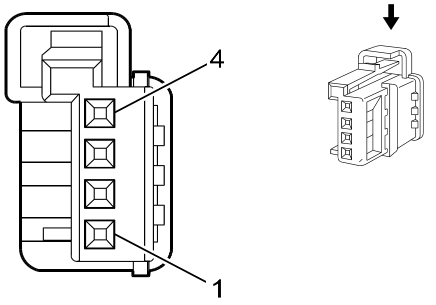
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K73 Telematics Communication Interface Control Module X1 (UE1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/BU	3240	Battery Positive Voltage	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BK/WH	2751	Signal Ground	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	GN/BK	2515	Keypad Control	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	BK/WH	2751	Signal Ground	I	—
9	0.35	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
10	0.35	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
11	0.35	GN/WH	2514	Keypad Signal	I	—
12	0.35	WH/BU	5986	Serial Data Communication Enable	I	—
13	0.35	Bare	1792	Low Reference	I	—
14	0.35	BK/GY	5152	Voice Recognition Audio Low Reference	I	—
15	0.35	GY/YE	5149	Voice Recognition Audio Signal	I	—
16	0.35	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
17	0.35	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
18	—	—	—	Not Occupied	—	—
19	0.35	YE/VT	2516	Keypad Green LED Control	I	—
20	0.35	Bare	1782	Low Reference	I	—
21	0.35	BK/BN	654	Cellular Telephone Microphone Low Reference	I	—
22	0.35	BU	655	Cellular Telephone Microphone Signal	I	—
23	0.35	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—
24 - 25	—	—	—	Not Occupied	—	—
26	0.35	BN/WH	2517	Keypad Red LED Control	I	—
27	—	—	—	Not Occupied	—	—
28	0.35	GY/WH	7211	Ethernet Bus 4 (+)	I	—
29	0.35	GY	7210	Ethernet Bus 4 (-)	I	—

K77 Remote Control Door Lock Receiver



2179793

Connector Part Information

Harness Type: Body
OEM Connector: 10768790
Service Connector: 13584096
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

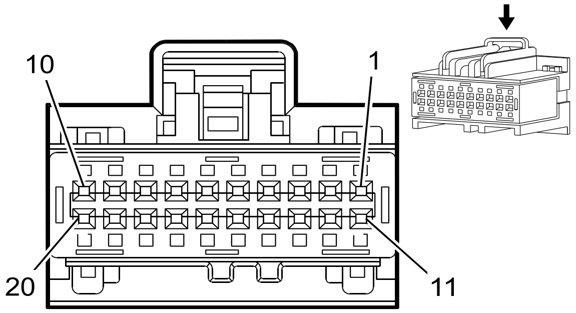
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K77 Remote Control Door Lock Receiver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	3273	Remote Function Actuator Low Reference	I	—
2	0.35	YE/GN	3274	Remote Function Actuator Transmit Signal	I	—
3	0.35	BU/WH	3275	Remote Function Actuator Receive Signal	I	—
4	0.35	GY/WH	3272	Remote Function Actuator Control	I	—

K84 Keyless Entry Control Module X1 (Crew Cab+BTM)



1664552

Connector Part Information

Harness Type: Body
OEM Connector: 13950640
Service Connector: 13525992
Description: 20-Way F USCAR 64 Series (BN)

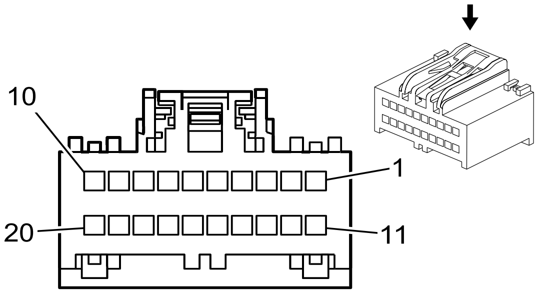
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K84 Keyless Entry Control Module X1 (Crew Cab+BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/VT	1601	Steering Column Lock Signal	I	—
2	0.5	RD/YE	4340	Battery Positive Voltage	I	—
3	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	VT/YE	4	Accessory Ignition Voltage	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	GY/GN	4083	RAP Relay 2 Coil Control	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	WH/YE	3574	Driver Door Open Switch Signal	I	—
10	0.35	YE/BU	4086	Pushbutton Start Challenge Active Signal	I	—
11	0.35	GN/BK	3558	Passive Start Switch Signal 2	I	—
12	0.35	BK/GY	3559	Passive Start Switch 2 Low Reference	I	—
13	0.35	VT/BK	3	Run/Crank Ignition 1 Voltage	I	—
14	0.5	BK/WH	1151	Signal Ground	I	—
15	0.35	GY/BK	3555	Passive Start Interior Antenna 2 Signal Lo	I	—
16	0.35	BN/BK	3552	Passive Start Interior Antenna 1 Signal Hi	I	—
17	0.35	WH	3553	Passive Start Interior Antenna 1 Signal Lo	I	—
18 - 19	—	—	—	Not Occupied	—	—
20	0.35	BU	3554	Passive Start Interior Antenna 2 Signal Hi	I	—

K84 Keyless Entry Control Module X2 (Crew Cab+BTM)



1715228

Connector Part Information

Harness Type: Body
OEM Connector: 13859758
Service Connector: 13525991
Description: 20-Way F USCAR 64 Series (GY)

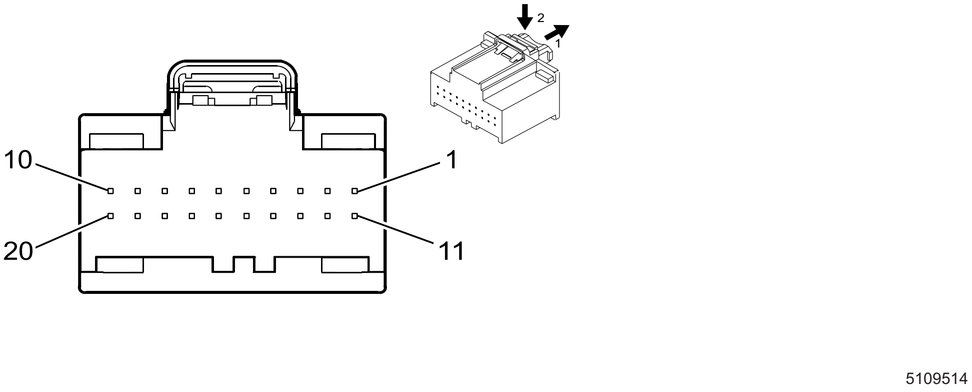
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K84 Keyless Entry Control Module X2 (Crew Cab+BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/GY	6158	Right Rear Door Handle Switch Signal	I	—
2	0.35	BN/YE	6157	Left Rear Door Handle Switch Signal	I	—
3 - 5	—	—	—	Not Occupied	—	—
6	0.5	VT	3560	Passive Entry Driver Door Antenna Signal Hi	I	—
7	0.5	VT/GY	3561	Passive Entry Driver Door Antenna Signal Lo	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	GN/BK	3563	Passive Entry Passenger Door Antenna Signal Lo	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	VT/WH	3571	Passenger Door Handle Switch Signal	I	—
12	0.35	GN/WH	3570	Driver Door Handle Switch Signal	I	—
13 - 15	—	—	—	Not Occupied	—	—
16	0.5	BN/GN	3568	Passive Entry Rear Closure Antenna Signal Hi	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	GN/GY	3569	Passive Entry Rear Closure Antenna Signal Lo	I	—
19	—	—	—	Not Occupied	—	—
20	0.5	GN/YE	3562	Passive Entry Passenger Door Antenna Signal Hi	I	—

K84 Keyless Entry Control Module X1 (Extended Cab+BTM)



Connector Part Information

Harness Type: Body
OEM Connector: 35162720
Service Connector: 13525992
Description: 20-Way F 0.64 Series (BN)

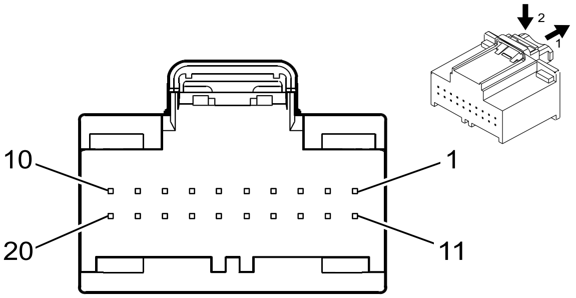
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K84 Keyless Entry Control Module X1 (Extended Cab+BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/VT	1601	Steering Column Lock Signal	I	—
2	0.5	RD/YE	4340	Battery Positive Voltage	I	—
3	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	VT/YE	4	Accessory Ignition Voltage	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	GY/GN	4083	RAP Relay 2 Coil Control	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	WH/YE	3574	Driver Door Open Switch Signal	I	—
10	0.35	YE/BU	4086	Pushbutton Start Challenge Active Signal	I	—
11	0.35	GN/BK	3558	Passive Start Switch Signal 2	I	—
12	0.35	BK/GY	3559	Passive Start Switch 2 Low Reference	I	—
13	0.35	VT/BK	3	Run/Crank Ignition 1 Voltage	I	—
14	0.5	BK/WH	1151	Signal Ground	I	—
15	0.35	GY/BK	3555	Passive Start Interior Antenna 2 Signal Lo	I	—
16	0.35	BN/BK	3552	Passive Start Interior Antenna 1 Signal Hi	I	—
17	0.35	WH	3553	Passive Start Interior Antenna 1 Signal Lo	I	—
18 - 19	—	—	—	Not Occupied	—	—
20	0.35	BU	3554	Passive Start Interior Antenna 2 Signal Hi	I	—

K84 Keyless Entry Control Module X2 (Extended Cab+BTM)



5109537

Connector Part Information

Harness Type: Body
OEM Connector: 35165309
Service Connector: 13525991
Description: 20-Way F 0.64 Series (GY)

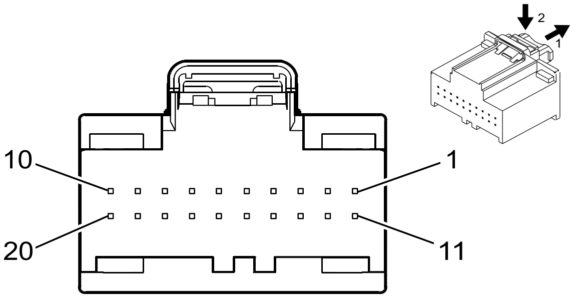
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K84 Keyless Entry Control Module X2 (Extended Cab+BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/GY	6158	Right Rear Door Handle Switch Signal	I	—
2	0.35	BN/YE	6157	Left Rear Door Handle Switch Signal	I	—
3 - 5	—	—	—	Not Occupied	—	—
6	0.5	VT	3560	Passive Entry Driver Door Antenna Signal Hi	I	—
7	0.5	VT/GY	3561	Passive Entry Driver Door Antenna Signal Lo	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	GN/BK	3563	Passive Entry Passenger Door Antenna Signal Lo	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	VT/WH	3571	Passenger Door Handle Switch Signal	I	—
12	0.35	GN/WH	3570	Driver Door Handle Switch Signal	I	—
13 - 15	—	—	—	Not Occupied	—	—
16	0.5	BN/GN	3568	Passive Entry Rear Closure Antenna Signal Hi	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	GN/GY	3569	Passive Entry Rear Closure Antenna Signal Lo	I	—
19	—	—	—	Not Occupied	—	—
20	0.5	GN/YE	3562	Passive Entry Passenger Door Antenna Signal Hi	I	—

K84 Keyless Entry Control Module X1 (Regular Cab+BTM)



5109514

Connector Part Information

Harness Type: Body
OEM Connector: 35162720
Service Connector: 13525992
Description: 20-Way F 0.64 Series (BN)

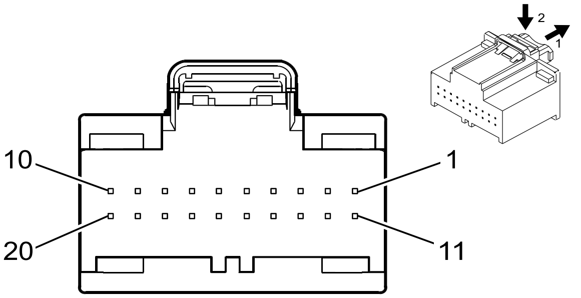
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

K84 Keyless Entry Control Module X1 (Regular Cab+BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/VT	1601	Steering Column Lock Signal	I	—
2	0.5	RD/YE	4340	Battery Positive Voltage	I	—
3	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	VT/YE	4	Accessory Ignition Voltage	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	GY/GN	4083	RAP Relay 2 Coil Control	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	WH/YE	3574	Driver Door Open Switch Signal	I	—
10	0.35	YE/BU	4086	Pushbutton Start Challenge Active Signal	I	—
11	0.35	GN/BK	3558	Passive Start Switch Signal 2	I	—
12	0.35	BK/GY	3559	Passive Start Switch 2 Low Reference	I	—
13	0.35	VT/BK	3	Run/Crank Ignition 1 Voltage	I	—
14	0.5	BK/WH	1151	Signal Ground	I	—
15	0.35	GY/BK	3555	Passive Start Interior Antenna 2 Signal Lo	I	—
16	0.35	BN/BK	3552	Passive Start Interior Antenna 1 Signal Hi	I	—
17	0.35	WH	3553	Passive Start Interior Antenna 1 Signal Lo	I	—
18 - 19	—	—	—	Not Occupied	—	—
20	0.35	BU	3554	Passive Start Interior Antenna 2 Signal Hi	I	—

K84 Keyless Entry Control Module X2 (Regular Cab+BTM)



5109537

Connector Part Information

Harness Type: Body
OEM Connector: 35165309
Service Connector: 13525991
Description: 20-Way F 0.64 Series (GY)

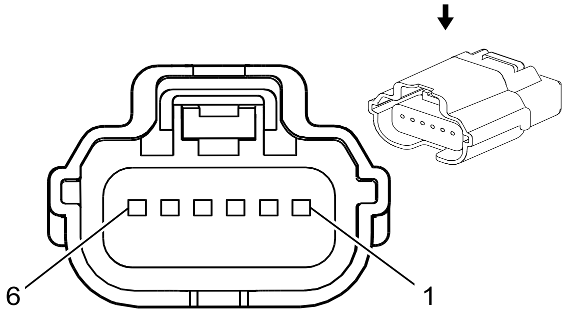
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

K84 Keyless Entry Control Module X2 (Regular Cab+BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 5	—	—	—	Not Occupied	—	—
6	0.5	VT	3560	Passive Entry Driver Door Antenna Signal Hi	I	—
7	0.5	VT/GY	3561	Passive Entry Driver Door Antenna Signal Lo	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	GN/BK	3563	Passive Entry Passenger Door Antenna Signal Lo	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	VT/WH	3571	Passenger Door Handle Switch Signal	I	—
12	0.35	GN/WH	3570	Driver Door Handle Switch Signal	I	—
13 - 15	—	—	—	Not Occupied	—	—
16	0.5	BN/GN	3568	Passive Entry Rear Closure Antenna Signal Hi	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	GN/GY	3569	Passive Entry Rear Closure Antenna Signal Lo	I	—
19	—	—	—	Not Occupied	—	—
20	0.5	GN/YE	3562	Passive Entry Passenger Door Antenna Signal Hi	I	—

K85 Passenger Presence Module



Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 31404-6132
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Series, Sealed (BK)

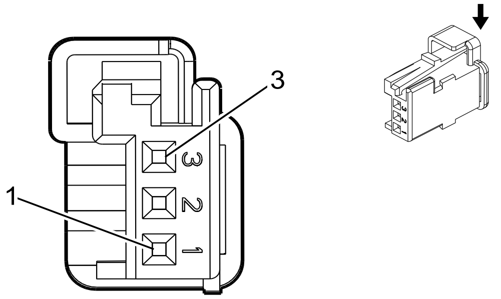
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K85 Passenger Presence Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/GN	4440	Battery Positive Voltage	I	—
2	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	BK/WH	2551	Signal Ground	I	—
5	0.5	GY/OG	3946	Automatic Locking Retractor Switch Low Reference	I	—
6	0.5	OG/BN	3947	Automatic Locking Retractor Switch Signal	I	—

K89 Immobilizer Control Module (-BTM)



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10763117
Service Connector: 19333317
Description: 3-Way F 0.64 Micro-Quadlock Series (BK)

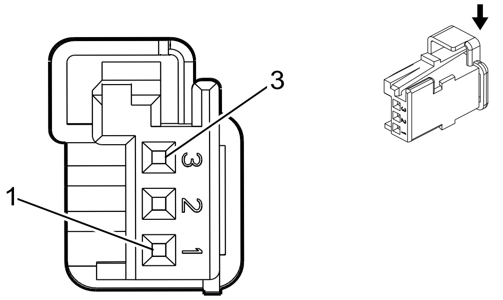
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K89 Immobilizer Control Module (-BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/GY	3277	Vehicle Anti-Theft System Immobilizer Low Reference	I	—
2	0.5	GN/VT	7533	Local Interconnect Network Serial Data Bus 11	I	—
3	0.5	GY/BK	3276	Vehicle Anti-Theft System Immobilizer Control	I	—

K89 Immobilizer Control Module (BTM+D07)



4218883

Connector Part Information

Harness Type: Floor Console
OEM Connector: 10763117
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Micro-Quadlock Series (BK)

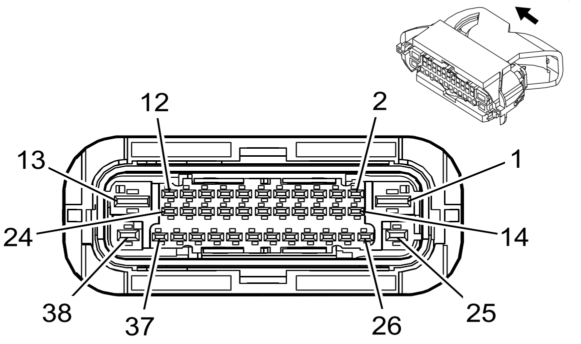
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K89 Immobilizer Control Module (BTM+D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/GY	3277	Vehicle Anti-Theft System Immobilizer Low Reference	I	—
2	0.35	GN/VT	7533	Local Interconnect Network Serial Data Bus 11	I	—
3	0.5	GY/BK	3276	Vehicle Anti-Theft System Immobilizer Control	I	—

K101 Trailer Interface Control Module



5141918

Connector Part Information

Harness Type: Chassis
OEM Connector: 13670757
Service Connector: 19371190
Description: 38-Way F 1.5, 2.8, 4.8 MCP Series, Sealed (BK with BN Inner Connector)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-35 (VT)	J-38125-557	1-968857-3	Lear 7	C	1
III	19371240	J-35616-40 (BU)	J-38125-556	1241408-1	Lear 28	A	B

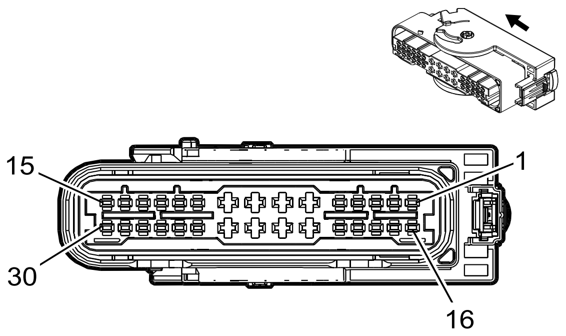
K101 Trailer Interface Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	RD/YE	5840	Battery Positive Voltage	III	—
2	0.75	YE/GY	1618	Left Rear Trailer Stop/Turn Lamp Control	I	—
3	0.75	GN/VT	1619	Right Rear Trailer Stop/Turn Lamp Control	I	—
4	—	—	—	Not Occupied	—	—
5	0.75	GY/BN	2109	Trailer Park Lamp Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	GN/WH	5189	Trailer Backup Lamp Control	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	I	—

K101 Trailer Interface Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
11	0.5	VT/WH	5065	Stop Lamp Relay Coil Control	I	—
12	—	—	—	Not Occupied	—	—
13	2.5	BK	1750	Ground	III	—
14 - 24	—	—	—	Not Occupied	—	—
25	2	RD/BN	7601	Trailer Battery Charge Control	II	—
26	—	—	—	Not Occupied	—	—
27	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
28 - 37	—	—	—	Not Occupied	—	—
38	2	RD/VT	5640	Battery Positive Voltage	II	—

K111 Fuel Pump Driver Control Module



3240109

Connector Part Information

Harness Type: Chassis
OEM Connector: 33386317
Service Connector: 19354086
Description: 30-Way F 1.5, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-4A (PU)	J-38125-557	Not Available	Not Available	Not Available	Not Available

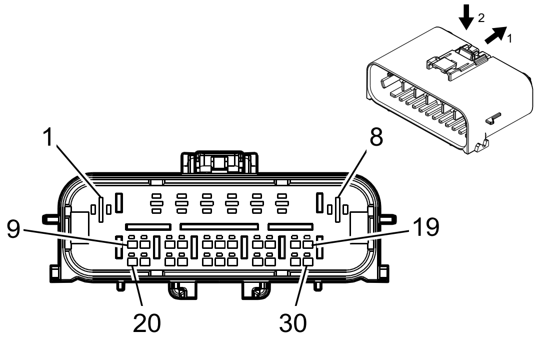
K111 Fuel Pump Driver Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/RD	6862	Water In Fuel Sensor 5V Reference	I	—
2	0.5	BU/YE	6861	Water In Fuel Sensor Signal	I	—
3	0.5	BK/BU	6863	Water In Fuel Sensor Low Reference	I	—
4	0.5	BN/VT	455	Fuel Filter Temperature Signal	I	—
5 - 6	—	—	—	Not Occupied	—	—

K111 Fuel Pump Driver Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
7	2.5	RD/VT	1940	Battery Positive Voltage	II	—
8	2.5	GY	120	Fuel Pump Control	II	—
9	2.5	YE/GY	4137	Fuel Pump Supply Voltage Phase 2	II	—
10	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—
11	0.5	BU/WH	890	Fuel Tank Pressure Sensor Signal	I	—
12	0.5	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	I	—
13	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—
14	—	—	—	Not Occupied	—	—
15	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
16	0.5	VT/GN	4320	Powertrain Sensor Bus Enable	I	—
17	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	I	—
18	0.5	GN/GY	465	Fuel Pump Primary Relay Control	I	—
19	0.5	BK/VT	412	Fuel Filter Temperature Sensor Low Reference	I	—
20	—	—	—	Not Occupied	—	—
21	0.5	WH	1310	EVAP Canister Vent Solenoid Control	II	—
22	2.5	BK	1750	Ground	II	—
23	0.5	BN	7444	Fuel System Control Module Shield Ground	II	—
24	2.5	WH/BN	4138	Fuel Pump Supply Voltage Phase 3	II	—
25	0.5	BK/BN	6284	Fuel Tank Vapor Pressure Sensor Low Reference	I	—
26	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	I	—
27	0.5	BK/YE	7447	Fuel Line Pressure Sensor Low Reference	I	—
28	0.5	BK/GN	6281	Fuel Level Sensor Low Reference	I	—
29	—	—	—	Not Occupied	—	—
30	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—

K115 Reductant Control Module (LM2)



4817393

Connector Part Information

Harness Type: Chassis
OEM Connector: 35099030
Service Connector: 19371177
Description: 30-Way M 1.2 MCON-CB, 2.8 MCP Series, Sealed (BK)

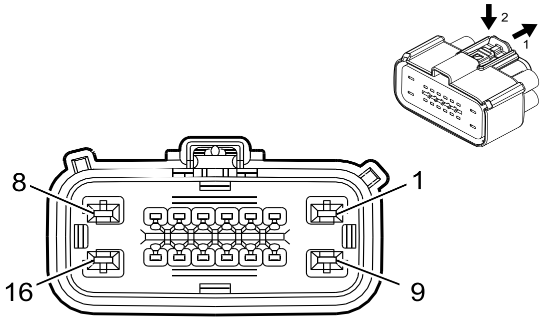
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-43 (RD)	J-38125-557	Not Available	Not Available	Not Available	Not Available
III	19371240	J-35616-5 (PU)	J-38125-36	1-962915-3	Yazaki 15	E	1

K115 Reductant Control Module (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BU	3921	DEF Heater Supply 1	II	—
2	1	RD/WH	3440	Battery Positive Voltage	III	—
3 - 6	—	—	—	Not Occupied	—	—
7	0.75	BK/WH	1651	Signal Ground	III	—
8	2.5	BK/WH	1651	Signal Ground	II	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
12	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
13	—	—	—	Not Occupied	—	—
14	0.5	VT/GN	4320	Powertrain Sensor Bus Enable	I	—
15	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
16	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
17	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
18 - 21	—	—	—	Not Occupied	—	—
22	0.5	BU/BN	4498	High Speed GMLAN Serial Data (+) 7	I	—
23	0.5	WH	4499	High Speed GMLAN Serial Data (-) 7	I	—
24	—	—	—	Not Occupied	—	—
25	0.5	VT/GN	439	Run/Crank Ignition 1 Voltage	I	—
26	—	—	—	Not Occupied	—	—
27	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
28	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
29 - 30	—	—	—	Not Occupied	—	—

K133 Trailer Brake Power Control Module (JL1)



4624589

Connector Part Information

Harness Type: Chassis
OEM Connector: 33297568
Service Connector: 13599889
Description: 16-Way F 1.5, 2.8 Series, Sealed (GY)

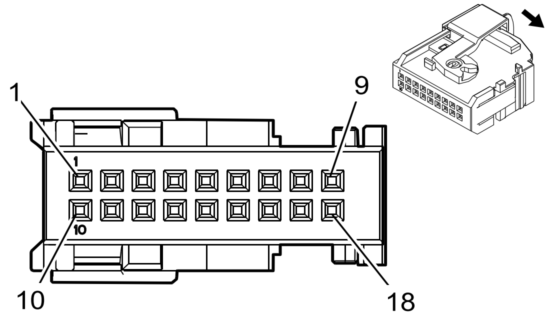
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-35 (VT)	J-38125-12A	1326030-8	Lear 17	4	D

K133 Trailer Brake Power Control Module (JL1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD/VT	1242	Battery Positive Voltage	II	—
2	1	WH/BK	2223	Trailer Brake Control Signal	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	YE/BK	2224	Trailer Brake Enable Signal	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	2.5	BU	47	Trailer Auxiliary Control	II	—
9	2.5	BK	1450	Ground	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.5	GN/BU	2733	Local Interconnect Network Bus 33	I	—
13 - 16	—	—	—	Not Occupied	—	—

K157 Video Processing Control Module X1 (UVI/UVS)



4329088

Connector Part Information

Harness Type: Body
OEM Connector: 33168840
Service Connector: 19369840
Description: 18-Way F Micro-Quadlock Series (BK)

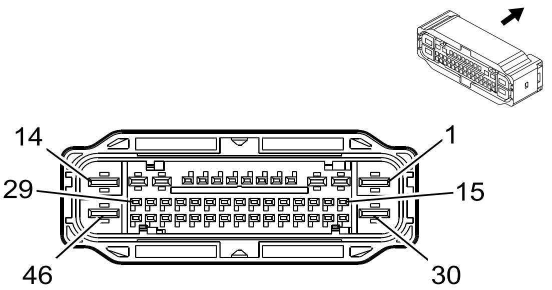
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

K157 Video Processing Control Module X1 (UVI/UVS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/VT	1640	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.5 0.75 0.5 0.75	BK/WH BK/WH BK/WH BK/WH	2751 2751 2751 2751	Signal Ground Signal Ground Signal Ground Signal Ground	I I I I	UVS UVS -UVS -UVS
4 - 8	—	—	—	Not Occupied	—	—
9	0.35 0.35 0.35 0.35	GN GY/GN GY/GN GN	5060 1102 1102 5060	Low Speed GMLAN Serial Data Low Speed GMLAN Serial Data #2 Low Speed GMLAN Serial Data #2 Low Speed GMLAN Serial Data	I I I I	UVI UVS -UVS -UVS
10	0.35	RD/VT	1640	Battery Positive Voltage	I	—
11	—	—	—	Not Occupied	—	—
12	0.75 0.5	BK/WH BK/WH	2751 2751	Signal Ground Signal Ground	I I	UVS -UVS
13 - 18	—	—	—	Not Occupied	—	—

K160 Brake System Control Module



4162046

Connector Part Information

Harness Type: Body
OEM Connector: 33222138
Service Connector: 19333026
Description: 46-Way F 1.2 OCS, 2.8, 4.8 CTS Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	19371240	J-35616-16 (LT GN)	J-38125-559	Not Available	Not Available	Not Available	Not Available
IV	19371240	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

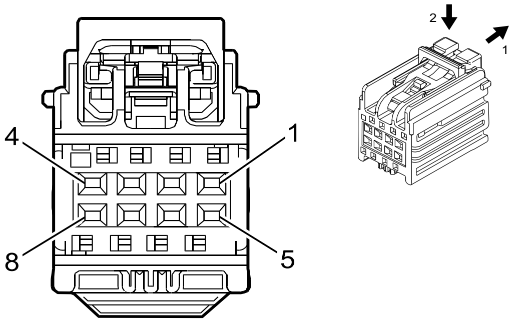
K160 Brake System Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	6	BK	150	Ground	II	—
2	2.5	WH	2001	Park Brake Motor Apply Left Rear Control	IV	—
3	2.5	GY/BK	4369	Park Brake Motor Low Reference Left Rear	IV	—
4	0.5 0.5	GY/WH GY/WH	7064 7064	Wheel Speed Sensor Control Left Front Wheel Speed Sensor Control Left Front	II III	— —
5	0.5 0.5	GY GY	830 830	Wheel Speed Sensor Signal Left Front Wheel Speed Sensor Signal Left Front	II III	— —
6 - 8	—	—	—	Not Occupied	—	—
9	0.5 0.5	VT/GN VT/GN	439 439	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	III II	— —
10	0.5 0.5	GY/BN GY/BN	7065 7065	Wheel Speed Sensor Control Right Front Wheel Speed Sensor Control Right Front	III II	— —
11	0.5 0.5	YE YE	872 872	Wheel Speed Sensor Signal Right Front Wheel Speed Sensor Signal Right Front	III II	— —
12	2.5	GN/VT	1988	Park Brake Motor Apply Right Rear Control	IV	—
13	2.5	GY	4368	Park Brake Motor Low Reference Right Rear	IV	—
14	6	RD/YE	442	Battery Positive Voltage	II	—

K160 Brake System Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
15	0.5 0.5	GY/BK GY/BK	7127 7127	Wheel Speed Sensor Control Left Rear Wheel Speed Sensor Control Left Rear	II III	— —
16	0.5 0.5	BU BU	884 884	Wheel Speed Sensor Signal Left Rear Wheel Speed Sensor Signal Left Rear	III II	— —
17	0.5 0.5	BU/YE BU/YE	6105 6105	High Speed GMLAN Serial Data (+) 2 High Speed GMLAN Serial Data (+) 2	III II	— —
18	—	—	—	Not Occupied	—	—
19	0.35 0.35	GN/GY GN/GY	817 817	Vehicle Speed Signal Vehicle Speed Signal	II III	— —
20 - 22	—	—	—	Not Occupied	—	—
23	0.35 0.35	GN/YE GN/YE	2731 2731	Local Interconnect Network Bus 31 Local Interconnect Network Bus 31	III II	— —
24	—	—	—	Not Occupied	—	—
25	0.5 0.5	WH WH	2501 2501	High Speed GMLAN Serial Data (-) 1 High Speed GMLAN Serial Data (-) 1	III II	— —
26	0.5 0.5	WH WH	2501 2501	High Speed GMLAN Serial Data (-) 1 High Speed GMLAN Serial Data (-) 1	II III	— —
27	0.35 0.35	VT/YE VT/YE	5985 5985	Accessory Wakeup Serial Data Accessory Wakeup Serial Data	II III	— —
28	0.5 0.5	GY/YE GY/YE	7128 7128	Wheel Speed Sensor Control Right Rear Wheel Speed Sensor Control Right Rear	II III	— —
29	0.5 0.5	VT VT	882 882	Wheel Speed Sensor Signal Right Rear Wheel Speed Sensor Signal Right Rear	II III	— —
30	6	BK	2250	Ground	II	—
31 - 32	—	—	—	Not Occupied	—	—
33	0.5 0.5	WH WH	6106 6106	High Speed GMLAN Serial Data (-) 2 High Speed GMLAN Serial Data (-) 2	III II	— —
34	—	—	—	Not Occupied	—	—
35	0.35 0.35	GN/BU GN/BU	2733 2733	Local Interconnect Network Bus 33 Local Interconnect Network Bus 33	III II	— —
36	1	WH/BK	2223	Trailer Brake Control Signal	I	—
37	0.5 0.5	YE/BK YE/BK	2224 2224	Trailer Brake Enable Signal Trailer Brake Enable Signal	III II	— —
38	0.5 0.5	GN/GY GN/GY	333 333	Brake Fluid Level Sensor Signal Brake Fluid Level Sensor Signal	III II	— —
39	0.5 0.5	WH WH	1612 1612	Brake Lining Wear Sensor Signal Left Front Brake Lining Wear Sensor Signal Left Front	II III	— —
40	—	—	—	Not Occupied	—	—
41	0.5 0.5	BU BU	2500 2500	High Speed GMLAN Serial Data (+) 1 High Speed GMLAN Serial Data (+) 1	III II	— —
42	0.5 0.5	BU BU	2500 2500	High Speed GMLAN Serial Data (+) 1 High Speed GMLAN Serial Data (+) 1	III II	— —
43	—	—	—	Not Occupied	—	—
44	0.5 0.5	GN/YE GN/YE	1616 1616	Brake Lining Wear Sensor Signal Rear Brake Lining Wear Sensor Signal Rear	III II	— —
45	—	—	—	Not Occupied	—	—
46	6	RD/VT	1640	Battery Positive Voltage	II	—

K182 Parking Assist Control Module X2 (UD5)



Connector Part Information

Harness Type: Body
OEM Connector: 33183559
Service Connector: 19355209
Description: 8-Way F YESC Kaizen Series (GY)

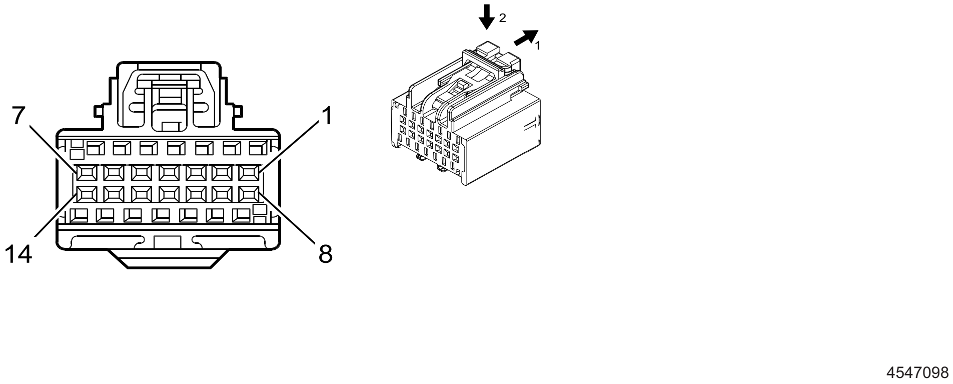
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K182 Parking Assist Control Module X2 (UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	YE/WH	2377	Right Rear Middle Object Sensor Signal	I	—
3	0.5	YE	2375	Left Rear Corner Object Sensor Signal	I	—
4	0.5	BN/WH	2374	Object Sensor Control	I	—
5	0.5	YE/VT	2378	Right Rear Corner Object Sensor Signal	I	—
6	0.5	YE/BU	2376	Left Rear Middle Object Sensor Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	BK/GY	2379	Object Sensor Low Reference	I	—

K182 Parking Assist Control Module X3 (UD5)



Connector Part Information

Harness Type: Body
OEM Connector: 35014564
Service Connector: 19354933
Description: 14-Way F 0.64 Kaizen Series (BU)

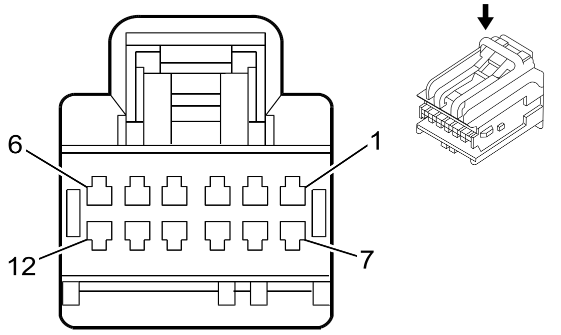
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

K182 Parking Assist Control Module X3 (UD5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/VT	5213	Front Parking Left/Right/Mid Sensor	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	YE/GY	5216	Front Parking Left Mid Sensor	I	—
5	0.5	WH/GY	5217	Front Parking Right Corner Sensor	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	BK/BU	5214	Front Parking Sensor Low Reference	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	VT/WH	5215	Front Parking Left Corner Sensor	I	—
11	0.5	VT/GY	5218	Front Parking Right Mid Sensor	I	—
12 - 14	—	—	—	Not Occupied	—	—

K182 Parking Assist Control Module X1 (UD5+Crew Cab)



1664569

Connector Part Information

Harness Type: Body
OEM Connector: 13950639
Service Connector: 13525987
Description: 12-Way F 0.64 Series, Sealed (BK)

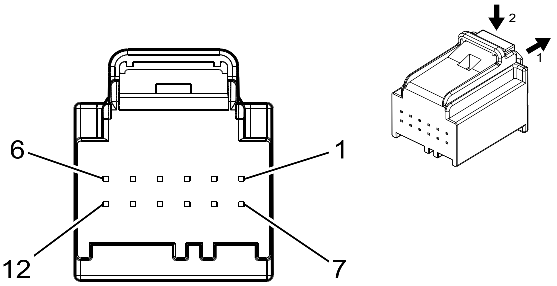
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K182 Parking Assist Control Module X1 (UD5+Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/GN	3140	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GN/BN	5852	Rear Park Assist LED Disable Signal	I	—
4	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
5 - 7	—	—	—	Not Occupied	—	—
8	0.35	GY/GN	2555	Rear Park Assist Disable Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.5 0.35	BK/WH BK/WH	1151 1151	Signal Ground Signal Ground	I I	-BTM UD5/UD7+BTM
11 - 12	—	—	—	Not Occupied	—	—

K182 Parking Assist Control Module X1 (UD5+Extended Cab)



5095565

Connector Part Information

Harness Type: Body
OEM Connector: 35130710
Service Connector: 13525987
Description: 12-Way F 0.64 Series, Sealed (BK)

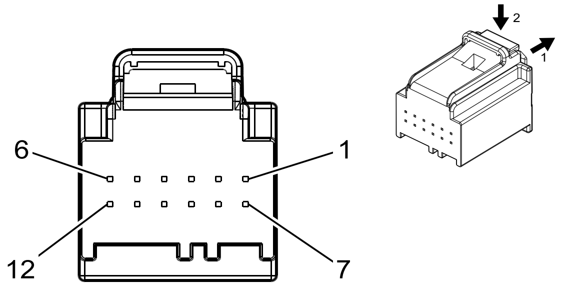
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

K182 Parking Assist Control Module X1 (UD5+Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/GN	3140	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GN/BN	5852	Rear Park Assist LED Disable Signal	I	—
4	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
5 - 7	—	—	—	Not Occupied	—	—
8	0.35	GY/GN	2555	Rear Park Assist Disable Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35 0.5	BK/WH BK/WH	1151 1151	Signal Ground Signal Ground	I I	BTM -BTM
11 - 12	—	—	—	Not Occupied	—	—

K182 Parking Assist Control Module X1 (UD5+Regular Cab)



5095565

Connector Part Information

Harness Type: Body
OEM Connector: 35130710
Service Connector: 13525987
Description: 12-Way F 0.64 Series, Sealed (BK)

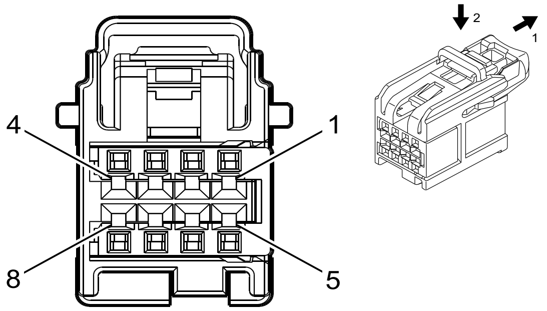
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

K182 Parking Assist Control Module X1 (UD5+Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/GN	3140	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GN/BN	5852	Rear Park Assist LED Disable Signal	I	—
4	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
5 - 7	—	—	—	Not Occupied	—	—
8	0.35	GY/GN	2555	Rear Park Assist Disable Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35 0.5	BK/WH BK/WH	1151 1151	Signal Ground Signal Ground	I I	BTM -BTM
11 - 12	—	—	—	Not Occupied	—	—

K183 UHF Short Range Low Energy Remote Control Access Transceiver (BOP)



4935776

Connector Part Information

Harness Type: Body
OEM Connector: 15526972
Service Connector: 19370429
Description: 8-Way F 0.64 OCS Series (BK)

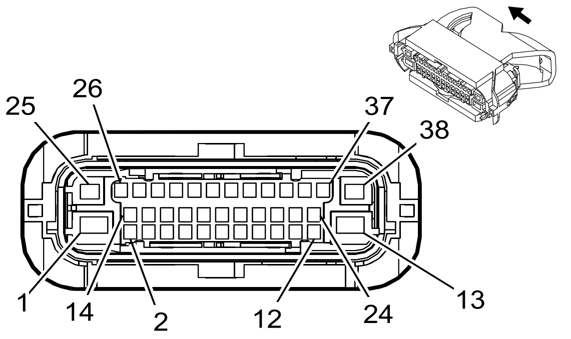
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K183 UHF Short Range Low Energy Remote Control Access Transceiver (BOP)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/BK	2738	Virtual Key Module Local Interconnect Network 1	I	—
2	0.5	RD/YE	2340	Battery Positive Voltage	I	—
3	0.5	BK	1150	Ground	I	—
4	0.5	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—
5 - 8	—	—	—	Not Occupied	—	—

K194 Pickup Box Endgate Control Module (QT6)



3240111

Connector Part Information

Harness Type: Endgate
OEM Connector: 13924619
Service Connector: Service by Harness - See Part Catalog
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK with BK Inner Connector)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

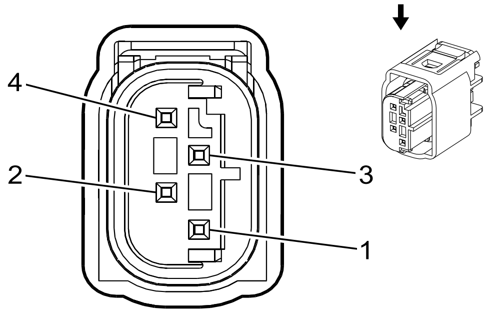
K194 Pickup Box Endgate Control Module (QT6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1450	Ground	I	—
2 - 4	—	—	—	Not Occupied	—	—
5	0.5	PK/BK	4668	Rear Closure Ajar Switch Signal 3	I	—
6	0.5	GY/VT	4678	Rear Closure Ajar Switch Signal 1	I	—
7	0.35	GN/BK	4659	Rear Closure Open	I	—
8	0.35	BU/BK	4665	Rear Closure Ajar Switch Signal 2	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	YE	1144	Endgate Release Switch Discrete Signal Exterior	I	—
11	—	—	—	Not Occupied	—	—
12	0.5	GY	1198	Endgate Release Switch Analog Signal Interior	I	—
13	2.5	RD/GY	7040	Battery Positive Voltage	I	—
14	0.5	GN	5060	Low Speed GMLAN Serial Data	I	—
15	—	—	—	Not Occupied	—	—
16	0.35	YE/RD	7734	Rear Closure Latch 2 Rachet Status	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	BN/RD	4683	Rear Closure Position Sensor Voltage Reference	I	—
19	0.35	BK/GN	4687	Rear Closure Position Sensor Low Reference	I	—
20	—	—	—	Not Occupied	—	—
21	0.35	BN/YE	4686	Rear Closure Position Sensor Signal 2	I	—
22	0.5	BU/WH	4685	Rear Closure Position Sensor Signal 1	I	—
23	0.5	WH	7735	Rear Closure Latch 2 Pawl Status	I	—
24	0.5	VT	7736	Rear Closure Latch 2 Unlatch Status	I	—
25	1	BN/WH	4690	Rear Closure Open/Close Motor Close Control	I	—
26	0.35	OG	7733	Rear Closure Latch 2 Sector Status	I	—
27	0.5	GY/BK	1575	Rear Closure Sensor Low Reference 2	I	—
28	0.5	BK/VT	4656	Rear Closure Object Sensor Low Reference	I	—
29	—	—	—	Not Occupied	—	—
30	1	BU	1509	Rear Closure Cinch Latch Motor 2 Release Control	I	—
31	1	PK	1499	Rear Closure Cinch Latch Motor 2 Cinch Control	I	—
32	—	—	—	Not Occupied	—	—
33	1	BU/GY	4682	Rear Closure Cinch Latch Motor Close Control	I	—

K194 Pickup Box Endgate Control Module (QT6) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
34	1	BN	4681	Rear Closure Cinch Latch Motor Open Control	I	—
35	0.5	GN	1577	Rear Closure Clutch Control	I	—
36	0.5	OG/WH	1590	Rear Closure Clutch Return	I	—
37	—	—	—	Not Occupied	—	—
38	1	WH	4689	Rear Closure Open/Close Motor Open Control	I	—

K214 Trailer Tire Pressure Indicator Module (PTT)



2173574

Connector Part Information

Harness Type: Chassis
OEM Connector: 13679454
Service Connector: 13314098
Description: 4-Way F 0.64 Micro-Quadlock Series, Sealed (BK)

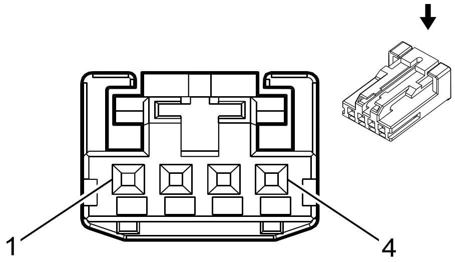
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K214 Trailer Tire Pressure Indicator Module (PTT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/GN	1840	Battery Positive Voltage	I	—
2	0.75	BK	1750	Ground	I	—
3	0.5	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
4	0.5	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—

KR62 Trailer Brake Control Relay



2717162

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13969166
Service Connector: 13587297
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

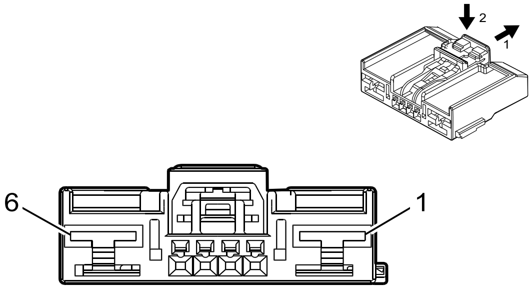
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

KR62 Trailer Brake Control Relay

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/GN	5140	Battery Positive Voltage	I	—
2	0.35	GN/BU	2733	Local Interconnect Network Bus 33	I	—
3	0.35	BK/WH	1851	Signal Ground	I	—
4	—	—	—	Not Occupied	—	—

M8 Blower Motor



4650258

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33395154
Service Connector: 19356432
Description: 6-Way F 0.64, 6.3 Series (BK)

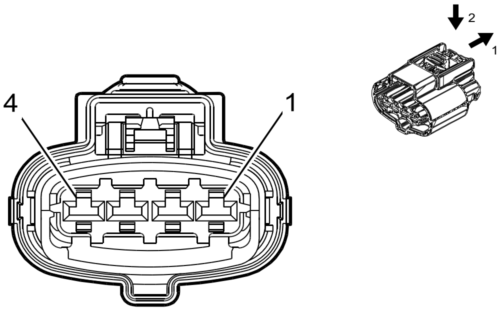
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M8 Blower Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	RD/VT	542	Battery Positive Voltage	I	—
2	0.35	BU/GY	754	Blower Motor Speed Control	I	—
3	0.35	GN/BU	761	Blower Speed Feedback Signal	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	4	BK	1050	Ground	I	—

M10 Charge Air Cooler Pump (LM2)



4997613

Connector Part Information

Harness Type: Engine
OEM Connector: 33230781
Service Connector: 19371209
Description: 4-Way F 2.8 CTS Series, Sealed (BK)

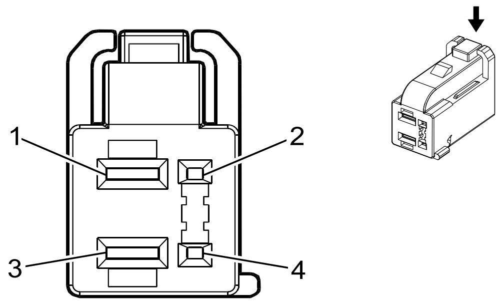
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M10 Charge Air Cooler Pump (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BK	550	Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	GN/BN	2732	Local Interconnect Network Bus 32	I	—
4	1	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	—

M50D Seat Front Vertical Motor - Driver (A2K+A45)



3683652

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 2272784-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BK)

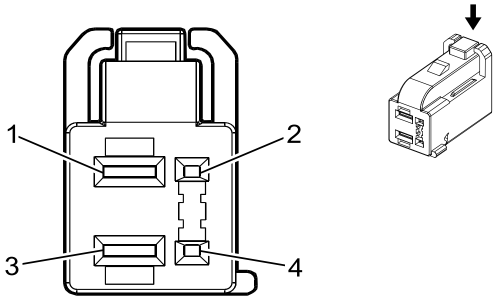
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M50D Seat Front Vertical Motor - Driver (A2K+A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BU/VT	287	Driver Power Seat Front Vertical Motor Down Control	I	—
2	0.5	WH/RD	3298	Memory Sensor High Reference 2	I	—
3	1.5	GN/BN	286	Driver Power Seat Front Vertical Motor Up Control	I	—
4	0.5	BN/WH	557	Memory Seat Front Vertical Motor Position Sensor Signal	I	—

M50D Seat Front Vertical Motor - Driver (A2K-A45)



3683652

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 2272784-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BK)

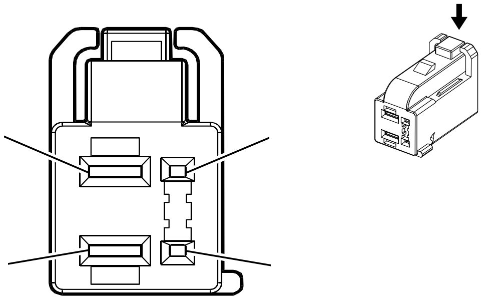
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M50D Seat Front Vertical Motor - Driver (A2K-A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BU/VT	287	Driver Power Seat Front Vertical Motor Down Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	GN/BN	286	Driver Power Seat Front Vertical Motor Up Control	I	—
4	—	—	—	Not Occupied	—	—

M50P Seat Front Vertical Motor - Passenger (A7K)



3683652

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 2272784-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BK)

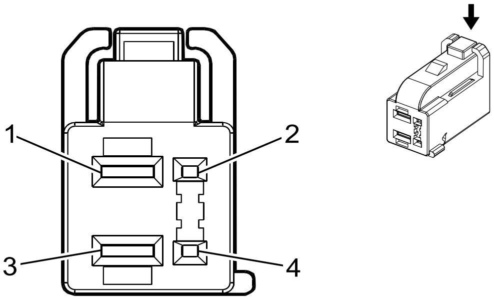
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M50P Seat Front Vertical Motor - Passenger (A7K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/VT	297	Passenger Power Seat Front Vertical Motor Up Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	GN/BU	298	Passenger Power Seat Front Vertical Motor Down Control	I	—
4	—	—	—	Not Occupied	—	—

M51D Seat Horizontal Motor - Driver (A2K-A45)



3683652

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 2272784-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BK)

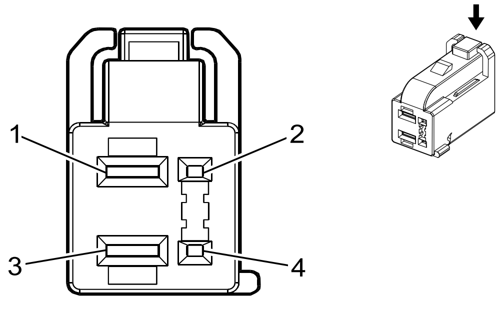
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M51D Seat Horizontal Motor - Driver (A2K-A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY/GN	284	Driver Power Seat Horizontal Motor Rearward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	YE/BU	285	Driver Power Seat Horizontal Motor Forward Control	I	—
4	—	—	—	Not Occupied	—	—

M51D Seat Horizontal Motor - Driver (A45)



Connector Part Information

Harness Type: Driver Seat
OEM Connector: 2272784-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BK)

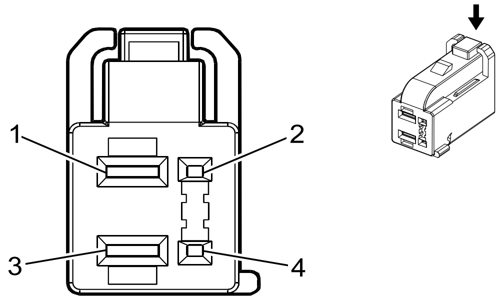
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M51D Seat Horizontal Motor - Driver (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY/GN	284	Driver Power Seat Horizontal Motor Rearward Control	I	—
2	0.5	GN	569	Memory Seat Horizontal Motor Position Sensor Signal	I	—
3	1.5	YE/BU	285	Driver Power Seat Horizontal Motor Forward Control	I	—
4	0.5	WH/RD	3298	Memory Sensor High Reference 2	I	—

M51P Seat Horizontal Motor - Passenger (A7K)



3683652

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 2272784-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BK)

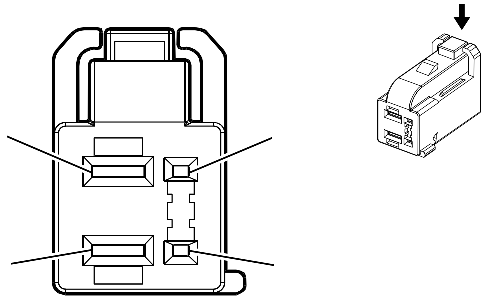
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M51P Seat Horizontal Motor - Passenger (A7K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	YE/BU	290	Passenger Power Seat Horizontal Motor Rearward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	YE/WH	296	Passenger Power Seat Horizontal Motor Forward Control	I	—
4	—	—	—	Not Occupied	—	—

M55D Seat Rear Vertical Motor - Driver (A2X+A45)



3683652

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 2272784-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BK)

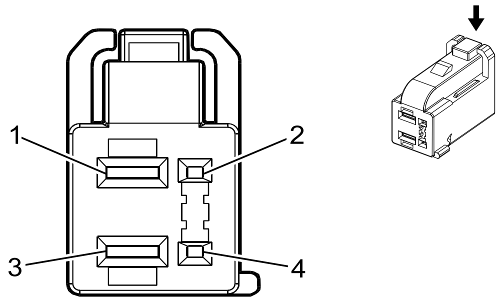
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M55D Seat Rear Vertical Motor - Driver (A2X+A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY/BU	283	Driver Power Seat Rear Vertical Motor Down Control	I	—
2	0.5	YE/BU	568	Memory Seat Rear Vertical Motor Position Sensor Signal	I	—
3	1.5	YE	282	Driver Power Seat Rear Vertical Motor Up Control	I	—
4	0.5	WH/RD	3298	Memory Sensor High Reference 2	I	—

M55D Seat Rear Vertical Motor - Driver (A2X-A45)



3683652

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 2272784-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BK)

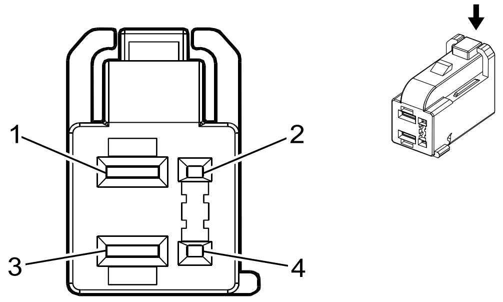
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M55D Seat Rear Vertical Motor - Driver (A2X-A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY/BU	283	Driver Power Seat Rear Vertical Motor Down Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	YE	282	Driver Power Seat Rear Vertical Motor Up Control	I	—
4	—	—	—	Not Occupied	—	—

M55P Seat Rear Vertical Motor - Passenger (A7K)



3683652

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 2272784-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BK)

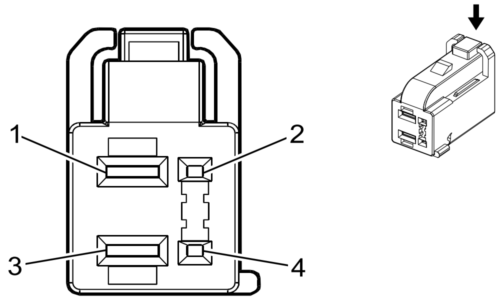
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M55P Seat Rear Vertical Motor - Passenger (A7K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BU/WH	289	Passenger Power Seat Rear Vertical Motor Down Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	GN/WH	288	Passenger Power Seat Rear Vertical Motor Up Control	I	—
4	—	—	—	Not Occupied	—	—

M56D Seat Recline Motor - Driver (A45)



3683652

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 2272784-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BK)

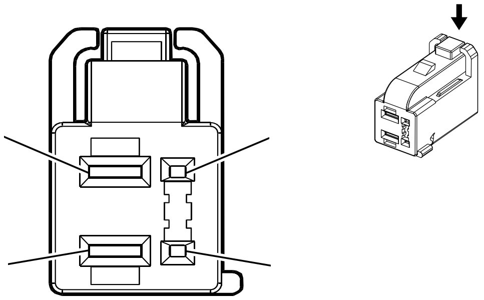
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M56D Seat Recline Motor - Driver (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/YE	276	Driver Power Seat Recline Motor Forward Control	I	—
2	0.5	WH/RD	3298	Memory Sensor High Reference 2	I	—
3	1.5	BU/YE	277	Driver Power Seat Recline Motor Rearward Control	I	—
4	0.5	WH/BK	570	Driver Memory Seat Recline Motor Position Sensor Signal	I	—

M56D Seat Recline Motor - Driver (-A45)



3683652

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 2272784-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BK)

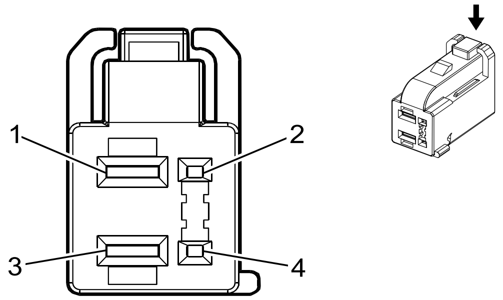
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M56D Seat Recline Motor - Driver (-A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/YE	276	Driver Power Seat Recline Motor Forward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	BU/YE	277	Driver Power Seat Recline Motor Rearward Control	I	—
4	—	—	—	Not Occupied	—	—

M56P Seat Recline Motor - Passenger (A7K)



3683652

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 2272784-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series (BK)

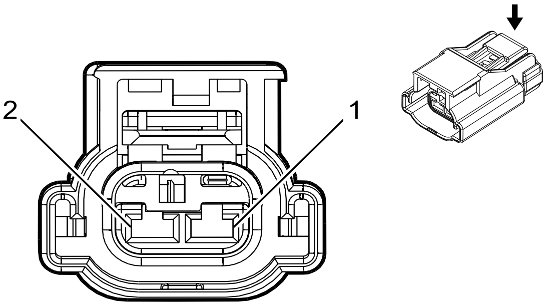
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M56P Seat Recline Motor - Passenger (A7K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN	76	Passenger Power Seat Recline Motor Forward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	BU/BN	77	Passenger Power Seat Recline Motor Rearward Control	I	—
4	—	—	—	Not Occupied	—	—

M63 Sliding Rear Window Motor (A48)



2716333

Connector Part Information

Harness Type: Body
OEM Connector: 13863838
Service Connector: 19301518
Description: 2-Way F 2.8 Series, Sealed (BK)

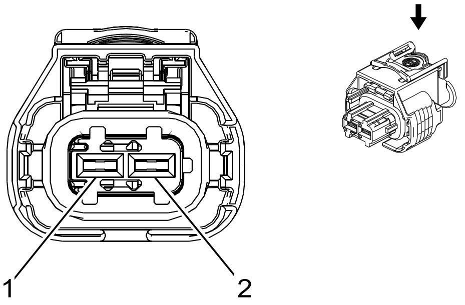
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M63 Sliding Rear Window Motor (A48)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE/BU	5442	Endgate Window Regulator Up Signal	I	—
2	2.5	GY/GN	5441	Endgate Window Regulator Down Signal	I	—

M64 Starter Motor X1 (L3B)



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

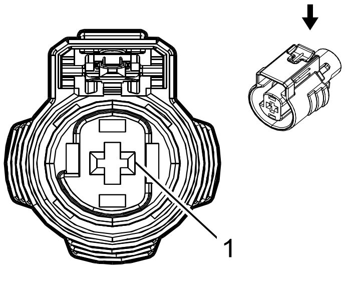
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor X1 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	I	—
2	2.5	YE/GN	4358	Starter Pinion Solenoid Voltage	I	—

M64 Starter Motor X1 (L82)



2717134

Connector Part Information

Harness Type: Engine
OEM Connector: 15526411
Service Connector: 19300471
Description: 1-Way F 2.8 MCP Series, Sealed (BK)

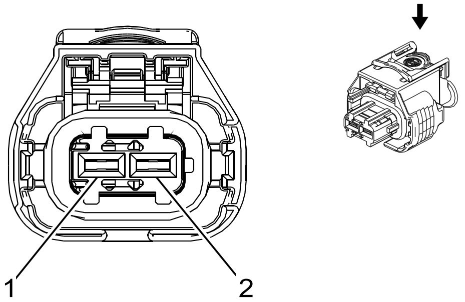
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor X1 (L82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	I	—

M64 Starter Motor X1 (L84/L87)



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

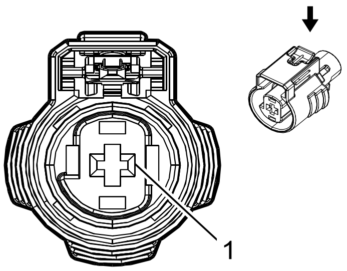
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor X1 (L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	I	—
2	2.5	YE/GN	4358	Starter Pinion Solenoid Voltage	I	—

M64 Starter Motor X1 (LM2)



2717134

Connector Part Information

Harness Type: Engine
OEM Connector: 15526411
Service Connector: 19300471
Description: 1-Way F 2.8 MCP Series, Sealed (BK)

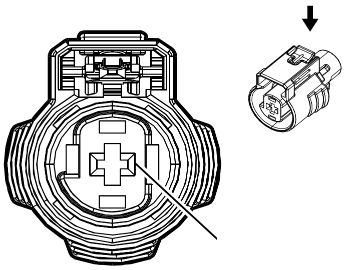
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor X1 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	I	—

M64 Starter Motor X1 (LV3)



2717134

Connector Part Information

Harness Type: Engine
OEM Connector: 15526411
Service Connector: 19300471
Description: 1-Way F 2.8 MCP Series, Sealed (BK)

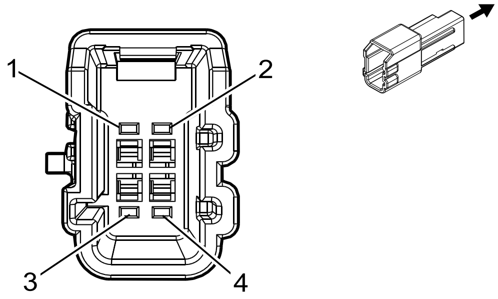
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor X1 (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	I	—

M73A Seat Blower Motor - Driver Back (KQV)



4293695

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 6098-7781
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (GY)

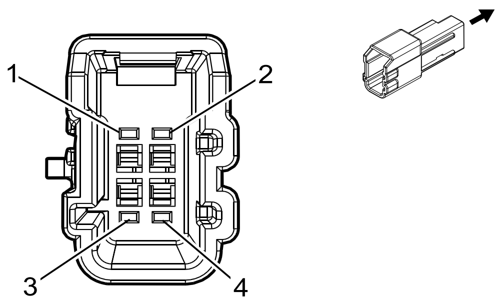
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M73A Seat Blower Motor - Driver Back (KQV)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/WH	4939	Run/Crank Ignition 1 Voltage	I	—
2	0.5	GN/VT	5906	Driver Seat Vent Motor Control 1	I	—
3	0.75	BK	1150	Ground	I	—
4	—	—	—	Not Occupied	—	—

M73B Seat Blower Motor - Passenger Back (KQV)



4293695

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 6098-7781
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (GY)

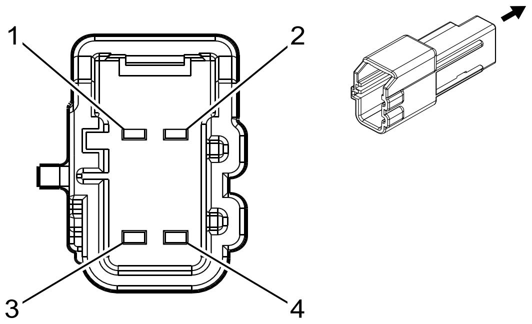
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M73B Seat Blower Motor - Passenger Back (KQV)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/WH	4939	Run/Crank Ignition 1 Voltage	I	—
2	0.5	WH	5908	Passenger Seat Vent Motor Control 1	I	—
3	0.75	BK	1250	Ground	I	—
4	—	—	—	Not Occupied	—	—

M73C Seat Blower Motor - Driver Cushion (KQV)



4210503

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 6098-7779
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (BK)

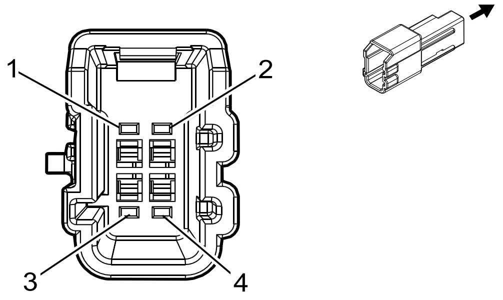
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M73C Seat Blower Motor - Driver Cushion (KQV)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/VT	2077	Driver Heated Seat Element Control	I	—
2	0.5	YE/GY	2079	Driver Heated Seat NTC Signal	I	—
3	0.5	BK/YE	2080	Driver Heated Seat NTC Low Reference	I	—
4	0.75	BN/BK	2078	Driver Heated Seat Element Low Reference	I	—

M73D Seat Blower Motor - Passenger Cushion (KQV)



4293695

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 6098-7781
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 Series (GY)

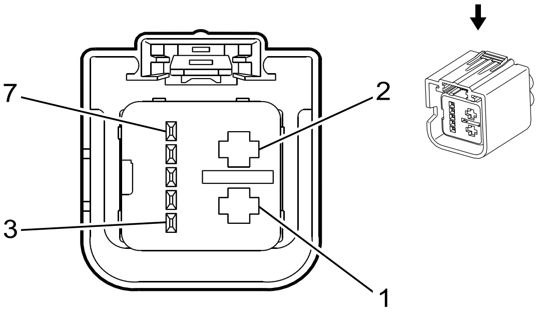
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M73D Seat Blower Motor - Passenger Cushion (KQV)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/WH	4939	Run/Crank Ignition 1 Voltage	I	—
2	0.5	WH	5908	Passenger Seat Vent Motor Control 1	I	—
3	0.75	BK	1250	Ground	I	—
4	—	—	—	Not Occupied	—	—

M74D Window Motor - Driver (AXG)



2282932

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15504732
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 0.64, 2.8 Kaizen Timer Series, Sealed (GY)

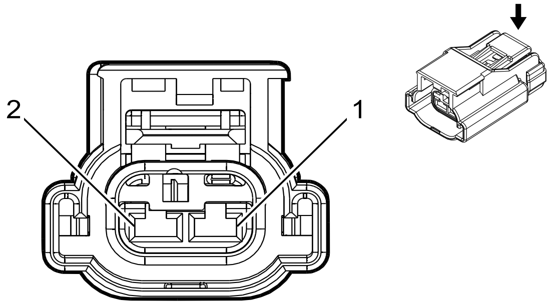
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M74D Window Motor - Driver (AXG)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1150	Ground	I	—
2	2.5	RD/BU	1842	Battery Positive Voltage	I	—
3	0.35	GN/WH	3379	Power Window Switch Driver Up Signal	I	—
4	0.5	GN/YE	6134	Local Interconnect Network Serial Data Bus 3	I	—
5	0.35	GN	3381	Power Window Switch Driver Express Signal	I	—
6	0.5	PK	745	Left Front Door Ajar Switch Signal	I	—
7	0.5	GY	3380	Power Window Switch Driver Down Signal	I	—

M74LR Window Motor - Left Rear (AEQ)



2716333

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 13863838
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed (BK)

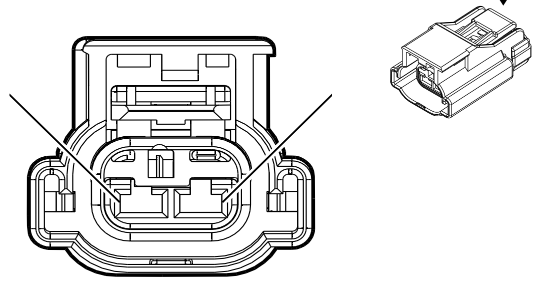
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M74LR Window Motor - Left Rear (AEQ)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	BU/VT	668	Power Window Motor Left Rear Up Control	I	—
2	2	YE/BU	669	Power Window Motor Left Rear Down Control	I	—

M74P Window Motor - Passenger (AED)



2716333

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13863838
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed (BK)

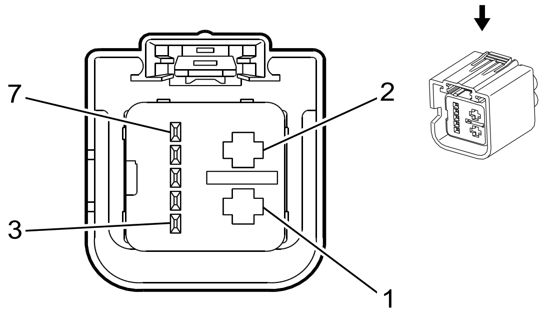
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M74P Window Motor - Passenger (AED)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/GY	3387	Power Window Motor Passenger Up Control	I	—
	2	GN/GY	3387	Power Window Motor Passenger Up Control	I	AED
2	1.5	YE/BU	3388	Power Window Motor Passenger Down Control	I	—
	2	YE/BU	3388	Power Window Motor Passenger Down Control	I	AED

M74P Window Motor - Passenger (AEF)



2282932

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15504732
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 0.64, 2.8 Kaizen Timer Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

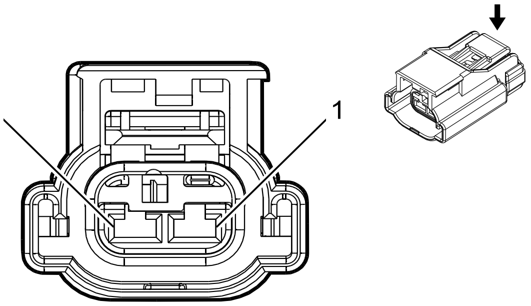
M74P Window Motor - Passenger (AEF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1250	Ground	I	—
2	2.5	RD/WH	1340	Battery Positive Voltage	I	—
3	0.35	YE/BK	3384	Power Window Switch Passenger Up Signal	I	—
4	0.35	GN/YE	6134	Local Interconnect Network Serial Data Bus 3	I	—
5	0.35	VT/GY	3386	Power Window Switch Passenger Express Signal	I	—
6	0.5	GY	746	Right Front Door Ajar Switch Signal	I	—

M74P Window Motor - Passenger (AEF) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
7	0.5	BN/YE	3385	Power Window Switch Passenger Down Signal	I	—

M74RR Window Motor - Right Rear (AEQ)



2716333

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 13863838
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed (BK)

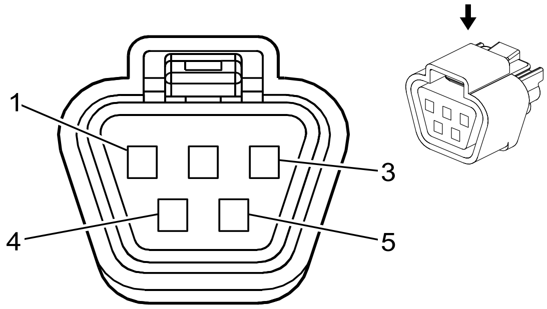
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M74RR Window Motor - Right Rear (AEQ)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	BU/GY	670	Power Window Motor Right Rear Up Control	I	—
2	2	GN/BK	671	Power Window Motor Right Rear Down Control	I	—

M75 Windshield Wiper Motor



1715213

Connector Part Information

Harness Type: Body
OEM Connector: 15316488
Service Connector: 13587179
Description: 5-Way F 090 Series, Sealed (BK)

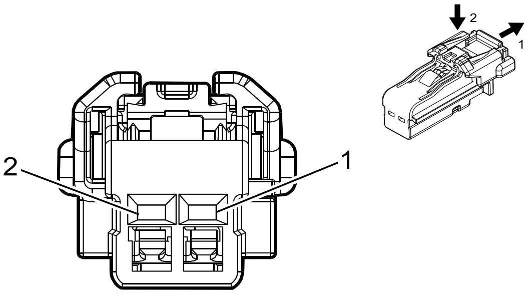
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M75 Windshield Wiper Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	YE/BN	95	Windshield Wiper Motor Low Speed Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	BN/GN	196	Windshield Wiper Motor Park Switch Signal	I	—
4	2	WH	92	Windshield Wiper Motor High Speed Control	I	—
5	2	BK	150	Ground	I	—

M93 Key Capture Solenoid Actuator (-BTM)



4115691

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35026312
Service Connector: 19352066
Description: 2-Way F 1.2 Series (BK)

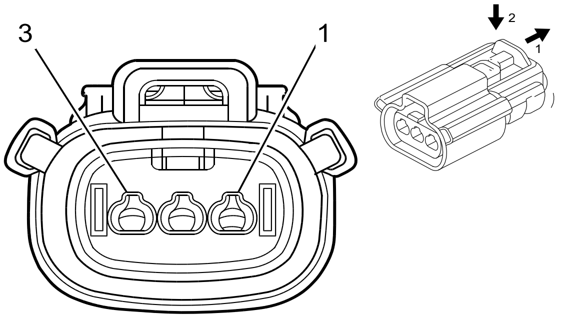
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M93 Key Capture Solenoid Actuator (-BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/GY	1630	Steering Column Key Cylinder Lock Solenoid Control	I	—
2	0.35	BK	1850	Ground	I	—

M96A Active Grille Air Shutter 1 Actuator (VTI/WMI)



5095610

Connector Part Information

Harness Type: Engine
OEM Connector: 35143007
Service Connector: 84719651
Description: 3-Way F 1.5 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

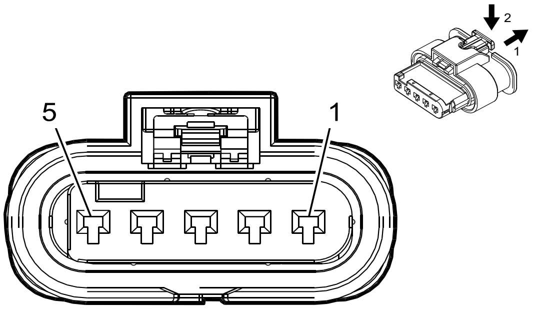
M96A Active Grille Air Shutter 1 Actuator (VTI/WMI)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	5705	Powertrain Main Relay Fused Control 6	I	—
2	0.5	GN/VT	4621	Local Interconnect Network Serial Data Bus 21	I	—

M96A Active Grille Air Shutter 1 Actuator (VTI/WMI) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	1	BK	4450	Ground	I	—

M103 Turbocharger Vane Position Actuator (LM2)



3338689

Connector Part Information

Harness Type: Engine
OEM Connector: 13943325
Service Connector: 19119351
Description: 5-Way F 1.2 MCON-LL Series, Sealed (BK)

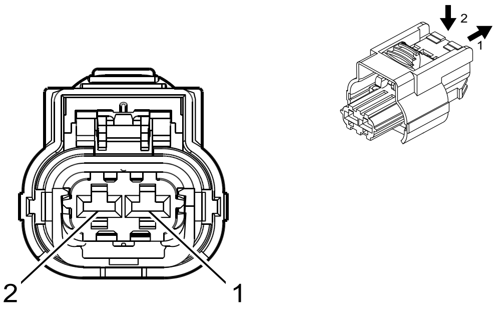
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M103 Turbocharger Vane Position Actuator (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	WH/BN	1313	Variable Geometry Turbocharger Position Sensor Motor Open Control	I	—
2	0.5	VT/YE	5947	Variable Nozzle Turbo Position Sensor Signal	I	—
3	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—
4	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
5	0.75	GY/BK	1330	Variable Geometry Turbocharger Position Sensor Motor Close Control	I	—

M104L Park Brake Actuator - Left



4992524

Connector Part Information

Harness Type: Rear Axle
OEM Connector: 35050650
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 CTS Series, Sealed (BK)

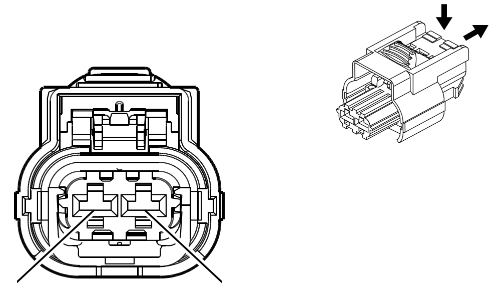
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M104L Park Brake Actuator - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY/BK	4369	Park Brake Motor Low Reference Left Rear	I	—
2	2.5	WH	2001	Park Brake Motor Apply Left Rear Control	I	—

M104R Park Brake Actuator - Right



4992524

Connector Part Information

Harness Type: Rear Axle
OEM Connector: 35050650
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 CTS Series, Sealed (BK)

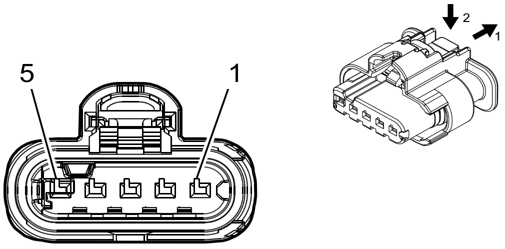
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M104R Park Brake Actuator - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY	4368	Park Brake Motor Low Reference Right Rear	I	—
2	2.5	GN/VT	1988	Park Brake Motor Apply Right Rear Control	I	—

M106 Exhaust Flow Control Valve Actuator (LM2)



4997783

Connector Part Information

Harness Type: Engine
OEM Connector: 35026727
Service Connector: 19371195
Description: 5-Way F 1.2 MCON-CB Series, Sealed (BK)

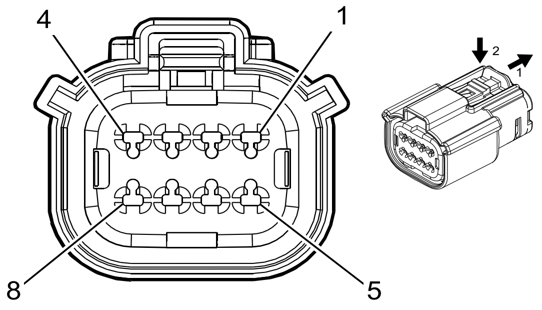
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M106 Exhaust Flow Control Valve Actuator (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
2	0.5	BN/GN	4305	Exhaust Flapper Valve Control 1	I	—
3	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
4	0.75	BN	1421	Exhaust Restrictor Motor Closed Control	I	—
5	0.75	YE/BN	1420	Exhaust Restrictor Motor Open Control	I	—

M125 Pickup Box Endgate Power Assist Actuator (QT6)



4846407

Connector Part Information

Harness Type: Endgate
OEM Connector: 35037827
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 MX Series, Sealed (BK)

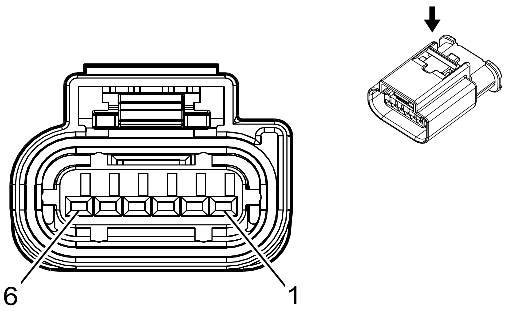
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M125 Pickup Box Endgate Power Assist Actuator (QT6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BN/WH	4690	Rear Closure Open/Close Motor Close Control	I	—
2	0.5	GN	1577	Rear Closure Clutch Control	I	—
3	0.5	OG/WH	1590	Rear Closure Clutch Return	I	—
4	0.5	BN/RD	4683	Rear Closure Position Sensor Voltage Reference	I	—
5	1	WH	4689	Rear Closure Open/Close Motor Open Control	I	—
6	0.35	BN/YE	4686	Rear Closure Position Sensor Signal 2	I	—
7	0.35	BK/GN	4687	Rear Closure Position Sensor Low Reference	I	—
8	0.5	BU/WH	4685	Rear Closure Position Sensor Signal 1	I	—

M128 Turbocharger Wastegate Actuator (L3B)



3747579

Connector Part Information

Harness Type: Engine
OEM Connector: 33220833
Service Connector: 19352911
Description: 6-Way F 1.2 MCON Series, Sealed (BK)

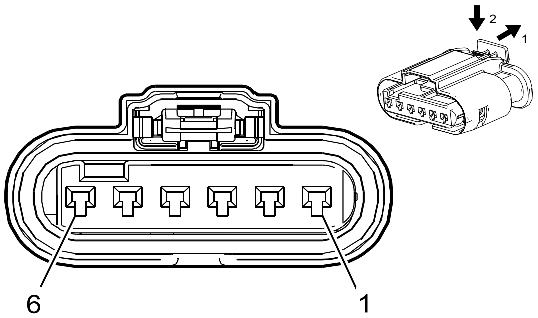
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M128 Turbocharger Wastegate Actuator (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
2	0.5	WH	2590	Turbo Charger Wastegate Motor Feedback Signal	I	—
3	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
4	0.75	WH/BU	2592	Turbo Charger Wastegate Motor Close Control	I	—
5	0.75	WH/BN	2591	Turbo Charger Wastegate Motor Open Control	I	—
6	—	—	—	Not Occupied	—	—

M129A Intake Camshaft Profile Actuator 1 (L3B)



3960142

Connector Part Information

Harness Type: Engine
OEM Connector: 33230495
Service Connector: 19368560
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

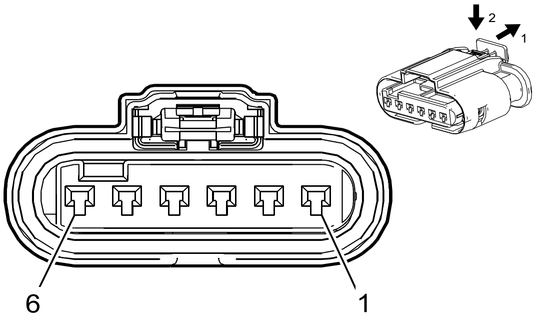
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M129A Intake Camshaft Profile Actuator 1 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/GY	3615	Step Cam A Control	I	—
2	0.5	BU/WH	3589	Camshaft Stepper Position Sensor 1 Signal	I	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
4	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
5	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
6	0.5	GN/BK	3616	Step Cam B Control	I	—

M129B Intake Camshaft Profile Actuator 2 (L3B)



3960142

Connector Part Information

Harness Type: Engine
OEM Connector: 33230495
Service Connector: 19368560
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

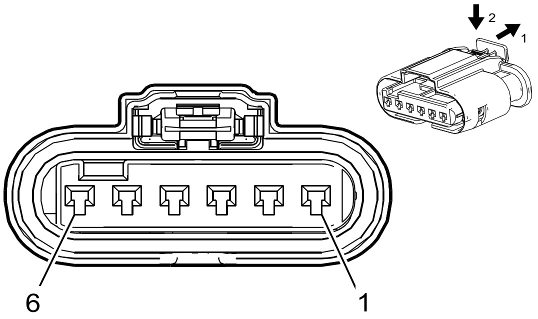
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M129B Intake Camshaft Profile Actuator 2 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	3584	Camshaft Stepper A Control	I	—
2	0.5	GN/WH	3592	Camshaft Stepper Position Sensor 2 Signal	I	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
4	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
5	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
6	0.5	GN	3585	Camshaft Stepper B Control	I	—

M129C Intake Camshaft Profile Actuator 3 (L3B)



3960142

Connector Part Information

Harness Type: Engine
OEM Connector: 33230495
Service Connector: 19368560
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

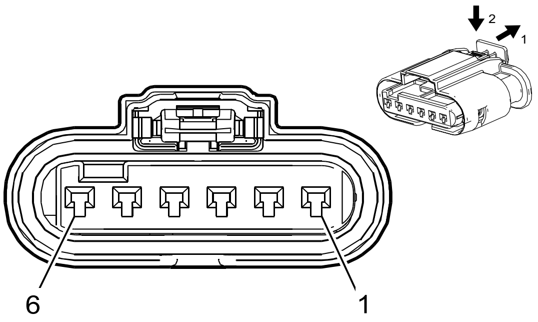
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M129C Intake Camshaft Profile Actuator 3 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BU	3587	Camshaft Stepper D Control	I	—
2	0.5	WH	924	—	I	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
4	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
5	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
6	0.5	GY	3586	Camshaft Stepper C Control	I	—

M129D Intake Camshaft Profile Actuator 4 (L3B)



3960142

Connector Part Information

Harness Type: Engine
OEM Connector: 33230495
Service Connector: 19368560
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

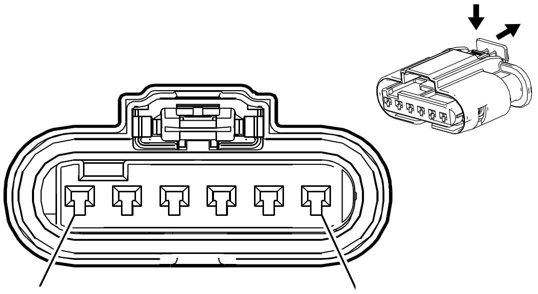
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M129D Intake Camshaft Profile Actuator 4 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/GN	927	—	I	—
2	0.5	BU/BK	928	—	I	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
4	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
5	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
6	0.5	BU	926	—	I	—

M130A Exhaust Camshaft Profile Actuator 1 (L3B)



3960142

Connector Part Information

Harness Type: Engine
OEM Connector: 33230495
Service Connector: 19368560
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

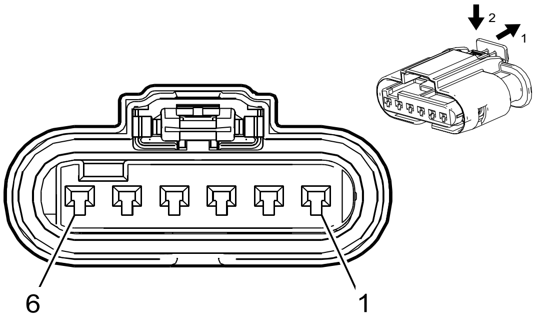
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M130A Exhaust Camshaft Profile Actuator 1 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	6262	Camshaft CAM Z Signal	I	—
2	0.5	GY/BN	933	—	I	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
4	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
5	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
6	0.5	GN/BN	6261	Camshaft CAM Z Control	I	—

M130B Exhaust Camshaft Profile Actuator 2 (L3B)



3960142

Connector Part Information

Harness Type: Engine
OEM Connector: 33230495
Service Connector: 19368560
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

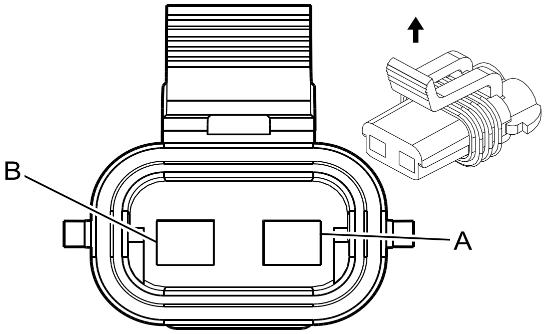
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M130B Exhaust Camshaft Profile Actuator 2 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/VT	6265	Camshaft CAM W Signal	I	—
2	0.5	BU	932	—	I	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
4	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
5	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
6	0.5	VT/BK	6264	Camshaft CAM X Signal	I	—

P3 Backup Alarm



68721

Connector Part Information

Harness Type: Trailer Jumper
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

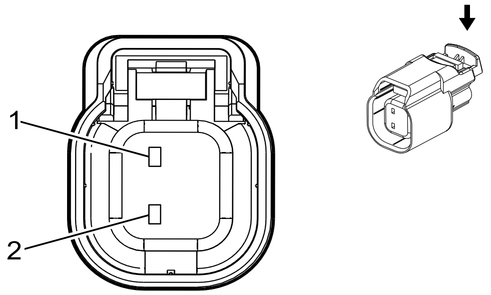
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P3 Backup Alarm

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	GN	1624	Trailer Backup Lamp Control	I	—
B	1	WH	22	Trailer Ground	I	—

P12 Horn (Crew Cab)



2792100

Connector Part Information

Harness Type: Body
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

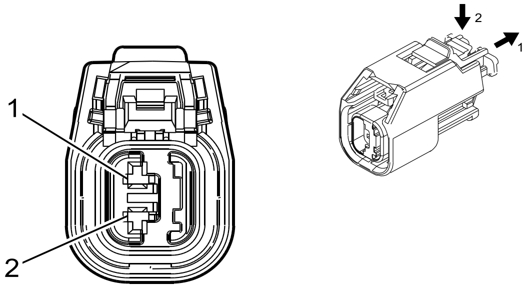
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P12 Horn (Crew Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	250	Ground	I	—
2	0.75	BN/GY	29	Horn Control	I	—

P12 Horn (Extended Cab)



4889830

Connector Part Information

Harness Type: Body
OEM Connector: 33164011
Service Connector: 13586115
Description: 2-Way F 1.5 OCS Series, Sealed (BK)

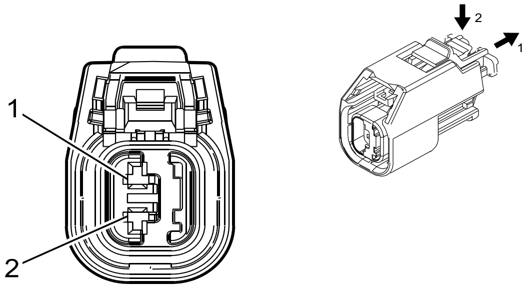
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P12 Horn (Extended Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	250	Ground	I	—
2	0.75	BN/GY	29	Horn Control	I	—

P12 Horn (Regular Cab)



4889830

Connector Part Information

Harness Type: Body
OEM Connector: 33164011
Service Connector: 13586115
Description: 2-Way F 1.5 OCS Series, Sealed (BK)

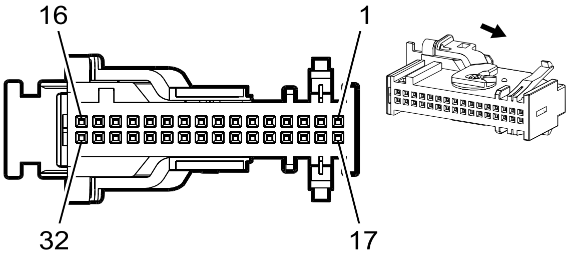
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P12 Horn (Regular Cab)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	250	Ground	I	—
2	0.75	BN/GY	29	Horn Control	I	—

P16 Instrument Cluster X1



627214

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12198036
Service Connector: 13511333
Description: 32-Way F 0.64 Micro-Quadlock Series (BK with GY Cover)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	144969-1	Lear 25	E	2

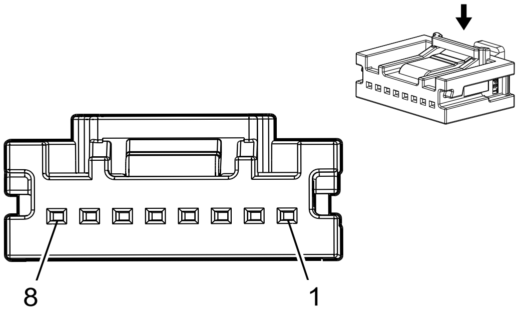
P16 Instrument Cluster X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN/BU	7216	Ethernet Bus 7 (-)	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.35	RD/GY	2840	Battery Positive Voltage	I	—
8	0.35	VT/BK	1639	Run/Crank Ignition 1 Voltage	I	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.35	GY/BK	4787	Day Night LED Control	I	—
12	0.35	GY/YE	3885	Forward Collision Alert LED Control	I	—
13	0.35	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
14	0.35	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
15	—	—	—	Not Occupied	—	—
16	0.35	BN/WH	419	Check Engine Indicator Control	I	—
17	0.35	GY/BU	7217	Ethernet Bus 7 (+)	I	—
18	—	—	—	Not Occupied	—	—
19	0.5	BK/WH	1851	Signal Ground	I	—
20	0.35	GN/BK	3894	Local Interconnect Network Serial Data Bus 12	I	—
21 - 22	—	—	—	Not Occupied	—	—
23	0.35	WH/BU	5986	Serial Data Communication Enable	I	—
24	0.35	VT	185	Low Washer Fluid Indicator Control	I	—
25 - 28	—	—	—	Not Occupied	—	—

P16 Instrument Cluster X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
29	0.35	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
30	0.35	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—
31	—	—	—	Not Occupied	—	—
32	0.35	GN/BN	507	Wait To Start Indicator Control	I	—

P17 Info Display Module X1 (IOR)



4017639

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33227522
Service Connector: 19354223
Description: 8-Way F Mini 50 Series (BK)

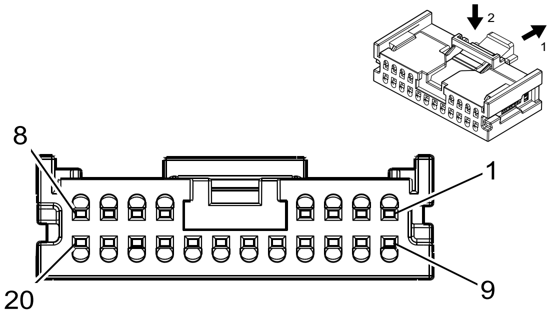
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P17 Info Display Module X1 (IOR)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/WH	1340	Battery Positive Voltage	I	—
2 - 7	—	—	—	Not Occupied	—	—
8	0.35	BK/WH	2751	Signal Ground	I	—

P17 Info Display Module X1 (IOS/IOT)



4231339

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33167777
Service Connector: 13596105
Description: 20-Way F Mini 50 Series (BK)

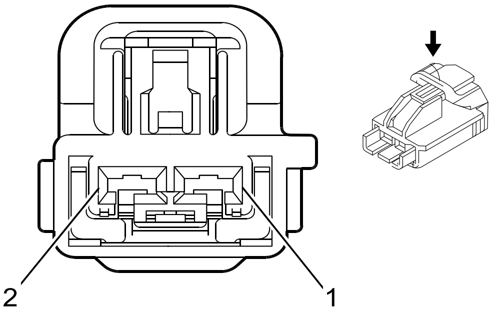
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

P17 Info Display Module X1 (IOS/IOT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU/RD	2807	Radio Keypad Voltage Reference	I	—
2	0.35	GY/BU	2803	Radio Display Touch Interrupt Request Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	BU	4315	Radio Volume Up Signal	I	—
5	0.35	GY/BN	4314	Radio Volume Down Signal	I	—
6	0.35	BN/WH	2809	Radio Keypad Power Signal	I	—
7	0.35	VT/WH	2810	Radio Keypad Button Signal	I	—
8	0.35	BU/GY	2808	Radio Keypad Dimming Control	I	—
9	0.35	BU/GN	2813	Radio Display Backlight Dimming Control	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	BK/GN	2804	Radio Display Backlight Low Reference	I	—
12	0.35	BU/RD	2807	Radio Keypad Voltage Reference	I	—
13	—	—	—	Not Occupied	—	—
14	0.35	BU	4315	Radio Volume Up Signal	I	—
15	0.35	GY/BN	4314	Radio Volume Down Signal	I	—
16	0.35	BN/WH	2809	Radio Keypad Power Signal	I	—
17	0.35	VT/WH	2810	Radio Keypad Button Signal	I	—
18	0.35	BU/GY	2808	Radio Keypad Dimming Control	I	—
19	0.35	GY/VT	3363	Navigation Display Dimming Control	I	—
20	0.35	BK/YE	2806	Radio Keypad Low Reference	I	—

P19AC Speaker - Subwoofer (UQA)



1803142

Connector Part Information

Harness Type: Body
OEM Connector: 10846819
Service Connector: 19367562
Description: 2-Way F YESC Kaizen Series (L-GY)

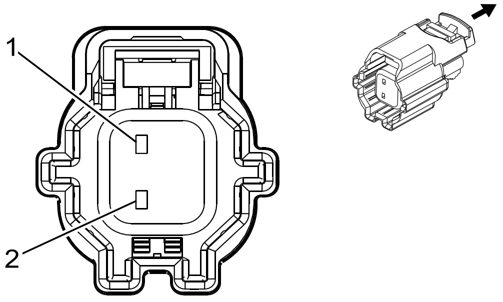
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AC Speaker - Subwoofer (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GN/BK	1794	Left/Rear Subwoofer Speaker (-) Low Reference	I	—
2	2.5	BU/GY	346	Left/Rear Subwoofer Speaker Control (+)	I	—

P19AG Speaker - Left Front Door



4223204

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15548606
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series (BK)

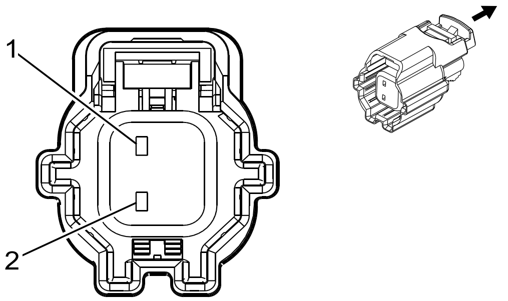
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AG Speaker - Left Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/BU	118	Left Front Speaker Signal (-) 1	I	—
2	0.75	BU	201	Left Front Speaker Control (+) 1	I	—

P19AH Speaker - Right Front Door (U95/UQA/UQF)



4223204

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15548606
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series (BK)

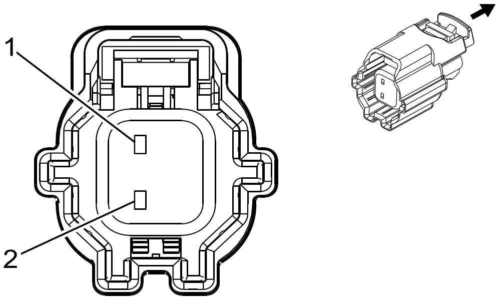
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AH Speaker - Right Front Door (U95/UQA/UQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/BK	117	Right Front Speaker Signal (-) 1	I	—
2	0.75	YE	200	Right Front Speaker Control (+) 1	I	—

P19AL Speaker - Left Rear Door (UQA/UQF)



4223204

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 15548606
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series (BK)

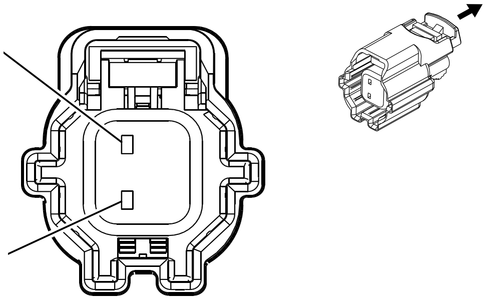
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AL Speaker - Left Rear Door (UQA/UQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/BK	116	Left Rear Speaker Signal (-)	I	—
2	0.5	GN	199	Left Rear Speaker Control (+)	I	—

P19AM Speaker - Right Rear Door (UQA/UQF)



4223204

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 15548606
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series (BK)

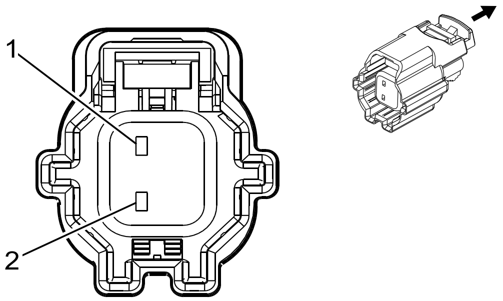
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AM Speaker - Right Rear Door (UQA/UQF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/BK	115	Right Rear Speaker Signal (-)	I	—
2	0.5	WH	46	Right Rear Speaker Control (+)	I	—

P19AM Speaker - Right Rear Door (UQF/UQA)



4223204

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 15548606
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series (BK)

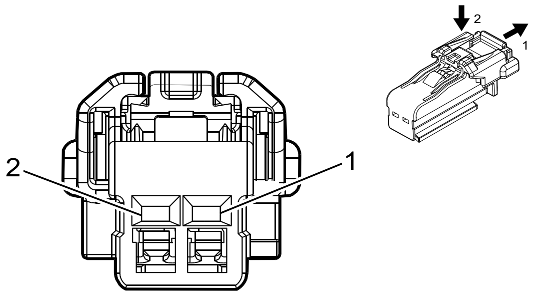
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AM Speaker - Right Rear Door (UQF/UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/BK	115	Right Rear Speaker Signal (-)	I	—
2	0.5	WH	46	Right Rear Speaker Control (+)	I	—

P19J Speaker - Left Instrument Panel (UQA)



4373379

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35034269
Service Connector: 19369632
Description: 2-Way F 1.2 Series (GY)

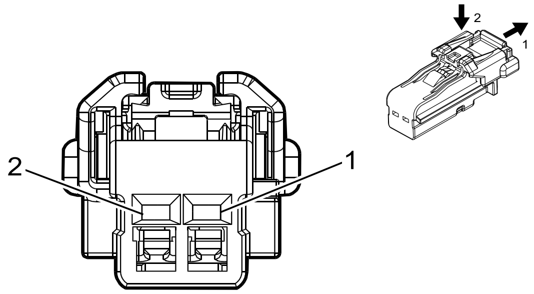
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19J Speaker - Left Instrument Panel (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU/BN	1957	Left Front Midrange Speaker (-) Low Reference	I	—
2	0.75	BU/VT	1857	Left Front Midrange Speaker Control (+)	I	—

P19J Speaker - Left Instrument Panel (UQF/U95)



4115691

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35026312
Service Connector: 19352066
Description: 2-Way F 1.2 Series (BK)

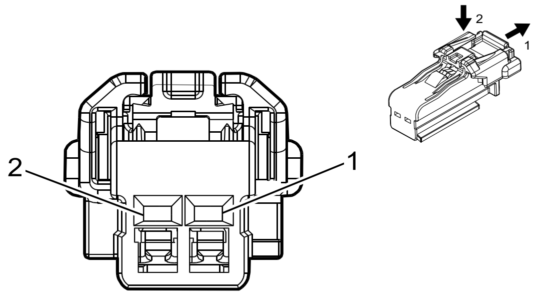
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19J Speaker - Left Instrument Panel (UQF/U95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/BU	118	Left Front Speaker Signal (-) 1	I	—
2	0.75	BU	201	Left Front Speaker Control (+) 1	I	—

P19W Speaker - Right Instrument Panel (UQA)



4373379

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35034269
Service Connector: 19369632
Description: 2-Way F 1.2 Series (GY)

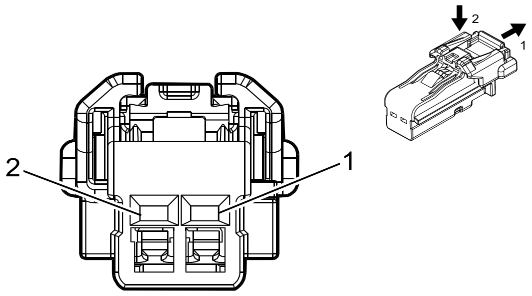
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19W Speaker - Right Instrument Panel (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/BK	1953	Right Front Midrange Speaker (-) Low Reference	I	—
2	0.75	WH/YE	1853	Right Front Midrange Speaker Control (+)	I	—

P19W Speaker - Right Instrument Panel (UQF/U95)



4115691

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35026312
Service Connector: 19352066
Description: 2-Way F 1.2 Series (BK)

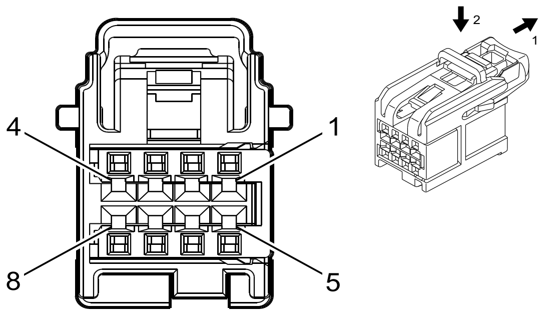
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19W Speaker - Right Instrument Panel (UQF/U95)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/BK	117	Right Front Speaker Signal (-) 1	I	—
2	0.75	YE	200	Right Front Speaker Control (+) 1	I	—

P29 Head-Up Display X1 (UV6)



4935776

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15526972
Service Connector: 19370429
Description: 8-Way F 0.64 OCS Series (BK)

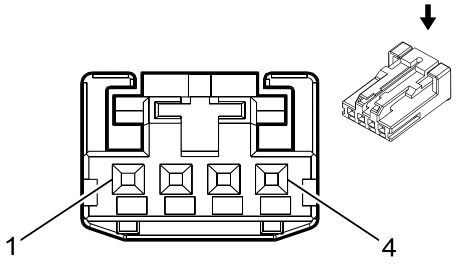
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P29 Head-Up Display X1 (UV6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/BK	3894	Local Interconnect Network Serial Data Bus 12	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	YE/WH	622	Head Up Display Switch Signal	I	—
4	0.35	BK/WH	1851	Signal Ground	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	RD/WH	1340	Battery Positive Voltage	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	BK/GN	5699	Head Up Display Switch Low Reference	I	—

P43 Collision Alert Indicators ((UEU/UHX)-UV6)



2717162

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13969166
Service Connector: 13587297
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

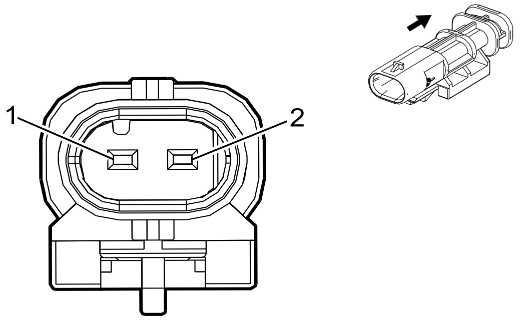
P43 Collision Alert Indicators ((UEU/UHX)-UV6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT/BK	1639	Run/Crank Ignition 1 Voltage	I	—
2	0.35	GY/YE	3885	Forward Collision Alert LED Control	I	—

P43 Collision Alert Indicators ((UEU/UHX)-UV6) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	0.35	GY/BK	4787	Day Night LED Control	I	—
4	0.5	BK/WH	1851	Signal Ground	I	—

P45LR Seat Haptic Movement Motor - Driver Left Rear (HS1)



2474755

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 2203314-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 Multilock Series, Sealed (BK)

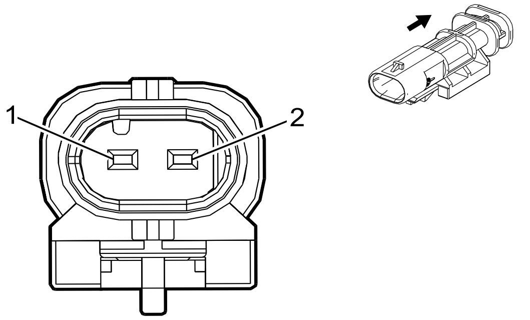
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P45LR Seat Haptic Movement Motor - Driver Left Rear (HS1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1150	Ground	I	—
2	0.5	YE/BN	3037	Left Rear Haptic Seat Motor Control	I	—

P45RR Seat Haptic Movement Motor - Driver Right Rear (HS1)



2474755

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 2203314-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 Multilock Series, Sealed (BK)

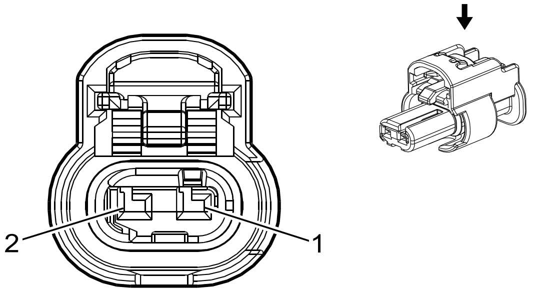
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P45RR Seat Haptic Movement Motor - Driver Right Rear (HS1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1150	Ground	I	—
2	0.5	BN	3038	Right Rear Haptic Seat Motor Control	I	—

Q2 A/C Compressor Clutch



4649903

Connector Part Information

Harness Type: Engine
OEM Connector: 33327048
Service Connector: 19366858
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

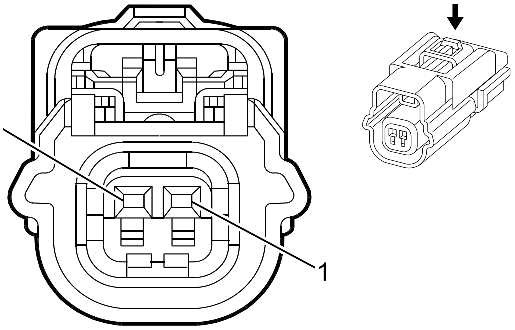
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q2 A/C Compressor Clutch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BK	4450	Ground	I	C4P/C67
	0.5	BK	4450	Ground	I	CJ2
2	0.5	BN/GN	59	A/C Compressor Clutch Control	I	—

Q6 Camshaft Position Actuator Solenoid Valve (L82/L84/L87)



1664592

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: 13528494
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Kaizen Series, Sealed (BK)

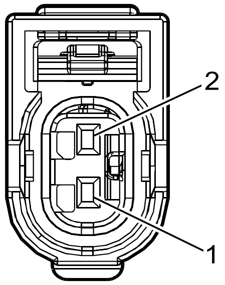
Terminal Part Information

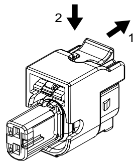
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q6 Camshaft Position Actuator Solenoid Valve (L82/L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	6753	Cam Phaser W Low Reference	I	—
2	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	I	—

Q6E Camshaft Position Actuator Solenoid Valve - Exhaust (L3B)





4994585

Connector Part Information

Harness Type: Engine
OEM Connector: 33386202
Service Connector: 19371204
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

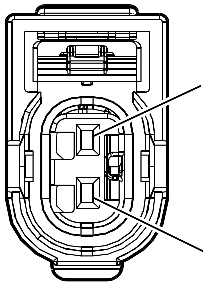
Terminal Part Information

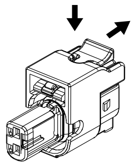
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q6E Camshaft Position Actuator Solenoid Valve - Exhaust (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BU	5282	Camshaft Phaser Exhaust Solenoid 1	I	—
2	0.5	BK/VT	6754	Cam Phaser X Low Reference	I	—

Q6F Camshaft Position Actuator Solenoid Valve - Intake (L3B)





4994585

Connector Part Information

Harness Type: Engine
OEM Connector: 33386202
Service Connector: 19371204
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

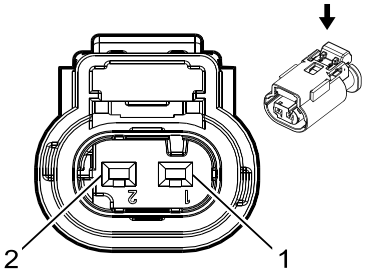
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q6F Camshaft Position Actuator Solenoid Valve - Intake (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	I	—
2	0.5	BK/BN	6753	Cam Phaser W Low Reference	I	—

Q12 Evaporative Emission Purge Solenoid Valve (L3B/L82/L84/L87/L3B)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

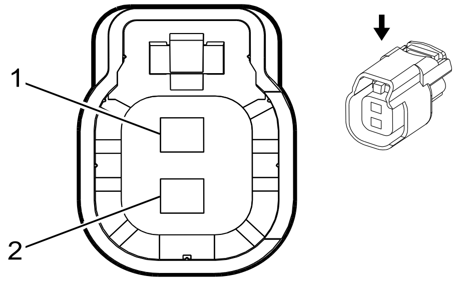
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q12 Evaporative Emission Purge Solenoid Valve (L3B/L82/L84/L87/L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	L3B
	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	L82/L84/L87
2	0.75	GN/BU	428	EVAP Canister Purge Solenoid Control	I	L3B
	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	I	L82/L84/L87
	0.5	GN/BU	428	EVAP Canister Purge Solenoid Control	I	LV3

Q13 Evaporative Emission Vent Solenoid Valve (L3B/L82/L84/L87/L3B)



2422378

Connector Part Information

Harness Type: Chassis
OEM Connector: 13771883
Service Connector: 13579002
Description: 2-Way F 1.5 Series, Sealed (BK)

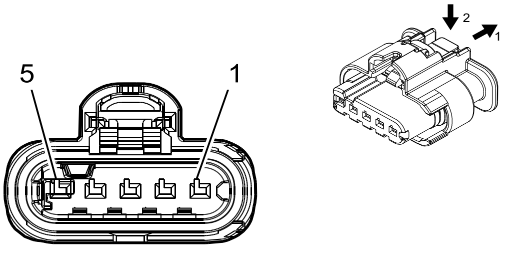
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q13 Evaporative Emission Vent Solenoid Valve (L3B/L82/L84/L87/L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	1310	EVAP Canister Vent Solenoid Control	I	—
2	0.5	RD/WH	2040	Battery Positive Voltage	I	—

Q14A Exhaust Gas Recirculation Valve 1 (LM2)



4997783

Connector Part Information

Harness Type: Engine
OEM Connector: 35026727
Service Connector: 19371195
Description: 5-Way F 1.2 MCON-CB Series, Sealed (BK)

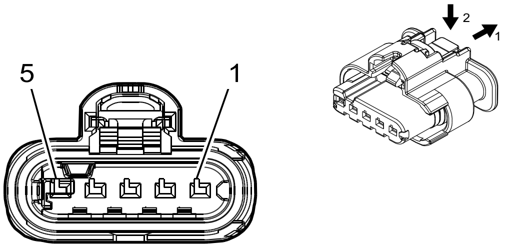
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q14A Exhaust Gas Recirculation Valve 1 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—
2	0.5	BN/WH	5763	Exhaust Gas Recirculation Valve Sensor Signal	I	—
3	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
4	0.75	WH/VT	5764	Exhaust Gas Recirculation Valve Motor High Signal	I	—
5	0.75	VT/BK	5746	Exhaust Gas Recirculation Valve Motor Low Signal	I	—

Q14B Exhaust Gas Recirculation Valve 2 (LM2)



4997783

Connector Part Information

Harness Type: Engine
OEM Connector: 35026727
Service Connector: 19371195
Description: 5-Way F 1.2 MCON-CB Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

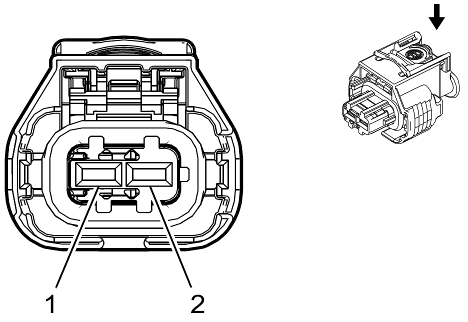
Q14B Exhaust Gas Recirculation Valve 2 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/YE	548	Engine Control Sensors Low Reference (1)	I	—
2	0.5	BU/GN	4012	Low Pressure Exhaust Gas Recirculation Actuator Position Signal	I	—
3	0.5	BU/RD	460	Engine Control Sensors 5 Volt Reference (1)	I	—

Q14B Exhaust Gas Recirculation Valve 2 (LM2) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
4	0.75	BU/WH	4014	Low Pressure Exhaust Gas Recirculation Actuator Control Open	I	—
5	0.75	BU/BN	4013	Low Pressure Exhaust Gas Recirculation Actuator Control Close	I	—

Q17A Fuel Injector 1 (LM2)



2845578

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: 1928405715
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed (BK)

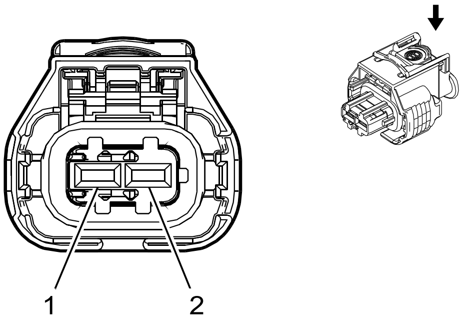
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17A Fuel Injector 1 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	I	—
2	1.5	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	I	—

Q17B Fuel Injector 2 (LM2)



2845578

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: 1928405715
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed (BK)

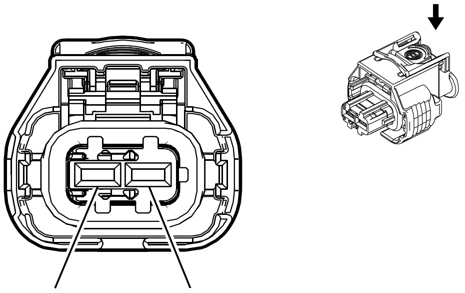
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17B Fuel Injector 2 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	I	—
2	1.5	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	I	—

Q17C Fuel Injector 3 (LM2)



2845578

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: 1928405715

Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed (BK)

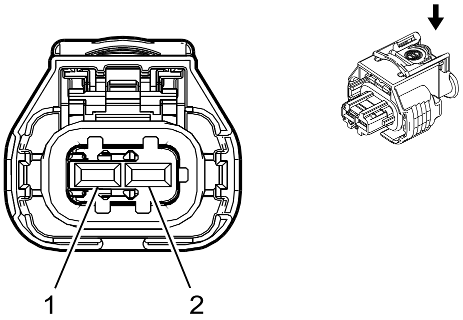
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17C Fuel Injector 3 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	I	—
2	1.5	GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	I	—

Q17D Fuel Injector 4 (LM2)



2845578

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: 1928405715
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed (BK)

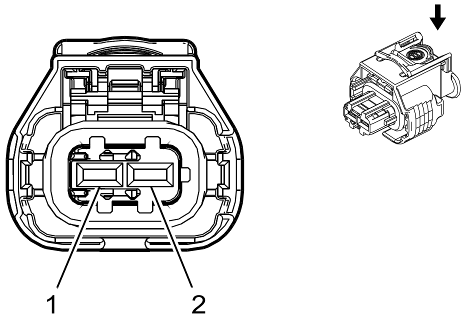
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17D Fuel Injector 4 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	I	—
2	1.5	GY/BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	I	—

Q17E Fuel Injector 5 (LM2)



2845578

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: 1928405715
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed (BK)

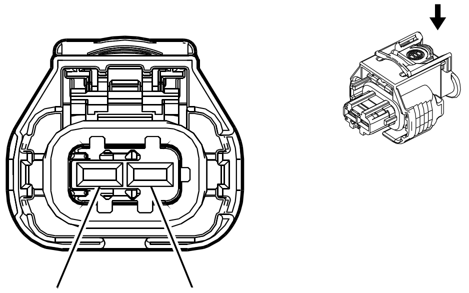
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17E Fuel Injector 5 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	I	—
2	1.5	WH/GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	I	—

Q17F Fuel Injector 6 (LM2)



2845578

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: 1928405715
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed (BK)

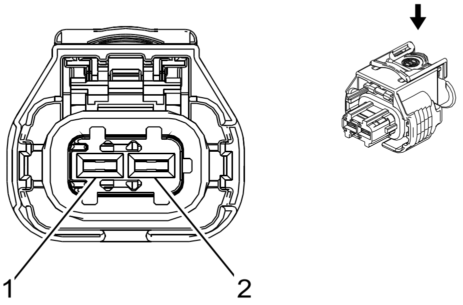
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17F Fuel Injector 6 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	VT/GY	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	I	—
2	1.5	VT/GN	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	I	—

Q18A Fuel Pressure Regulator 1 (LM2)



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

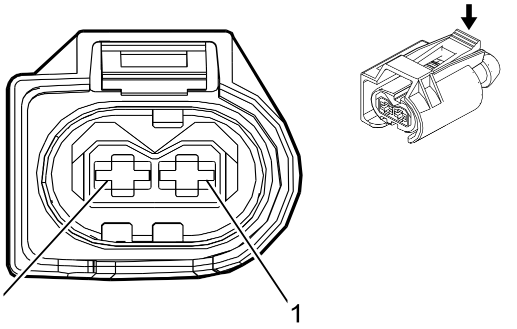
Q18A Fuel Pressure Regulator 1 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE/VT	7245	High Pressure Fuel Pump Low Enable	I	—

Q18A Fuel Pressure Regulator 1 (LM2) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.75	GY/BN	7244	High Pressure Fuel Pump High Side Supply	I	—

Q18B Fuel Pressure Regulator 2 (LM2)



5095463

Connector Part Information

Harness Type: Engine
OEM Connector: 33163309
Service Connector: 84616656
Description: 2-Way F 2.8 Series, Sealed (BK)

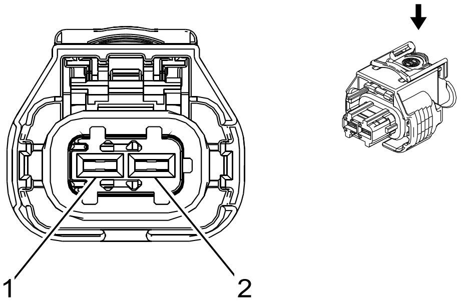
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q18B Fuel Pressure Regulator 2 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK/YE	2834	Fuel Rail Pressure Solenoid Low Reference	I	—
2	0.75	BU/WH	2530	Fuel Rail Pressure Solenoid Control	I	—

Q18C Fuel Pressure Regulator 3 (LM2)



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

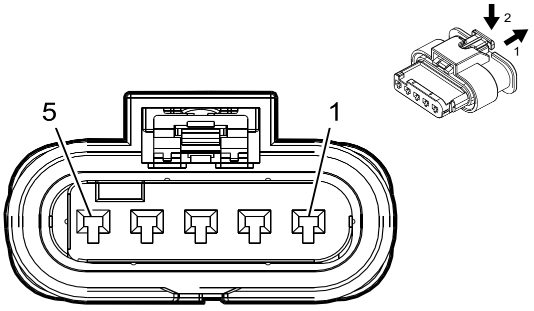
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q18C Fuel Pressure Regulator 3 (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE/VT	2420	Fuel High Pressure Pump Low Enable	I	—
2	1	GY/BN	2419	Fuel High Pressure Pump High Side Supply	I	—

Q22 Intake Manifold Tuning Solenoid Valve (LM2)



3338689

Connector Part Information

Harness Type: Engine
OEM Connector: 13943325
Service Connector: 19119351
Description: 5-Way F 1.2 MCON-LL Series, Sealed (BK)

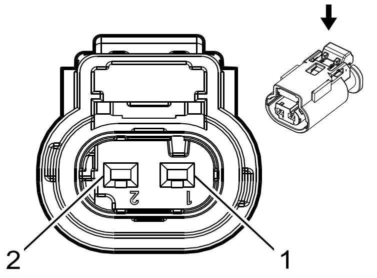
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q22 Intake Manifold Tuning Solenoid Valve (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—
2	0.5	GN/GY	7316	Variable Swirl Valve PWM Control Signal	I	—
3	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—
4	0.75	BK/BU	1408	Variable Swirl Valve Close Control	I	—
5	0.75	BK/GN	1389	Variable Swirl Valve Open Control	I	—

Q37LF Shock Absorber Actuator - Left Front (Z45)



2717066

Connector Part Information

Harness Type: Electronic Suspension Strut Extension
OEM Connector: 10010337
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

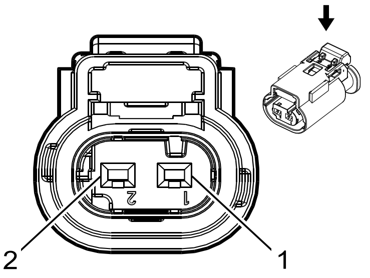
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q37LF Shock Absorber Actuator - Left Front (Z45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU/WH	1107	Left Front Damping Servo Control	I	—
2	0.75	GY	1113	Left Front Damping Servo Control	I	—

Q37RF Shock Absorber Actuator - Right Front (Z45)



2717066

Connector Part Information

Harness Type: Electronic Suspension Strut Extension
OEM Connector: 10010337
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

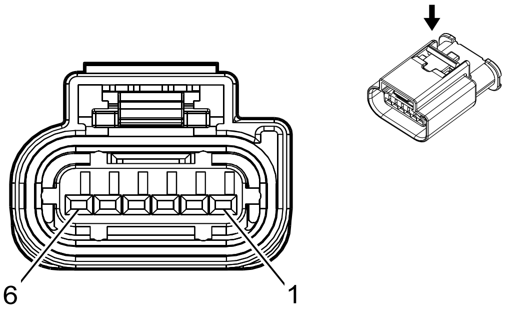
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q37RF Shock Absorber Actuator - Right Front (Z45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU/WH	1116	Right Front Damping Servo Control	I	—
2	0.75	GY	1117	Right Front Damping Servo Control	I	—

Q38 Throttle Body



3747579

Connector Part Information

Harness Type: Engine
OEM Connector: 33220833
Service Connector: 19352911
Description: 6-Way F 1.2 MCON Series, Sealed (BK)

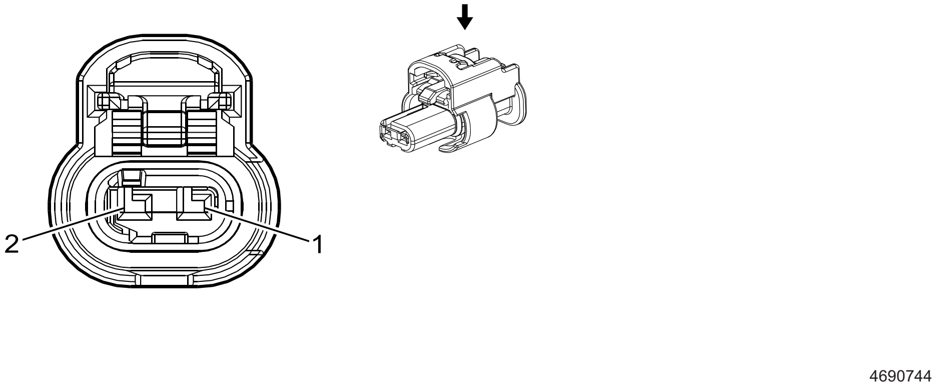
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q38 Throttle Body

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Control Open	I	L3B
	0.75	YE	581	Throttle Actuator Control Open	I	LM2
2	0.5	BN/WH	582	Throttle Actuator Control Close	I	L3B
	0.75	BN/WH	582	Throttle Actuator Control Close	I	LM2
3	0.5	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	L3B
	0.75	BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	LM2
4	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	L3B
	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	LM2
5	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	I	L3B
	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	LM2
6	—	—	—	Not Occupied	—	—

Q40 Turbocharger Bypass Solenoid Valve (L3B)



Connector Part Information

Harness Type: Engine
OEM Connector: 33375932
Service Connector: 19366871
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

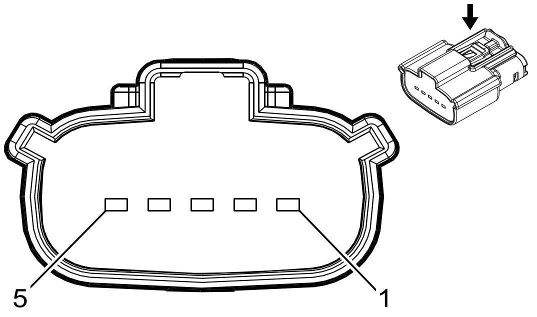
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q40 Turbocharger Bypass Solenoid Valve (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
2	0.75	GN	3060	Turbo Bypass Solenoid Control Bank 1	I	—

Q43 Valve Lifter Oil Manifold Assembly (LV3)



3240108

Connector Part Information

Harness Type: Engine
OEM Connector: 13843947
Service Connector: 19301721
Description: 5-Way F 150 MX Series, Sealed (BK)

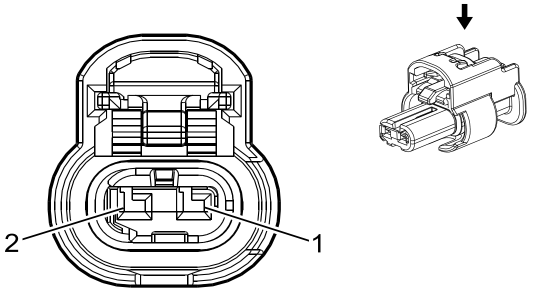
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q43 Valve Lifter Oil Manifold Assembly (LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	5491	Cylinder Shutoff Solenoid Control 1	I	—
2	—	—	—	Not Occupied	—	—
3	0.75	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—
4	—	—	—	Not Occupied	—	—
5	0.5	GN	5492	Cylinder Shutoff Solenoid Control 2	I	—

Q46 A/C Compressor Solenoid Valve



Connector Part Information

Harness Type: Engine
OEM Connector: 33371691
Service Connector: 19366843
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

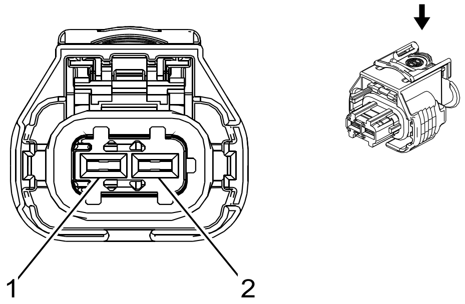
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q46 A/C Compressor Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/YE	7574	Electric Variable Displacement Control	I	—
2	0.5	BU/BN	7573	Electric Variable Displacement Supply	I	—

Q61 Reductant Injector (LM2)



Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

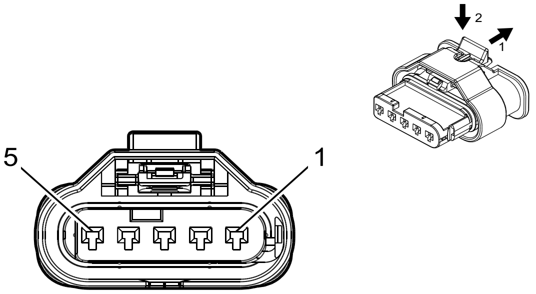
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q61 Reductant Injector (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN/WH	3100	DEF Dosing Valve Low Control	I	—
2	0.75	BN	3099	DEF Dosing Valve High Control	I	—

Q74 Engine Coolant Bypass Valve (L3B)



4994456

Connector Part Information

Harness Type: Engine
OEM Connector: 35110578
Service Connector: 19371191
Description: 5-Way F 1.2 MCON-LL Series, Sealed (NA)

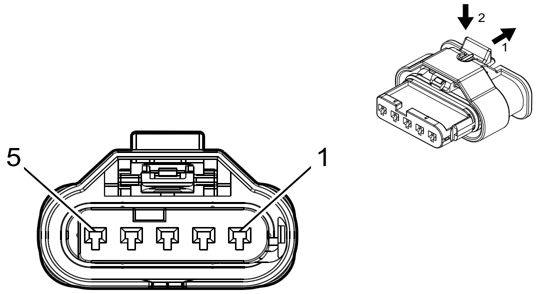
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q74 Engine Coolant Bypass Valve (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU	2976	Coolant Diverter Valve Actuator Control Low	I	—
2	0.75	BU/BN	2977	Coolant Diverter Valve Actuator Control High	I	—
3	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—
4	0.5	BK/BU	2979	Coolant Diverter Valve Position Sensor Low Reference	I	L3B
5	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—

Q74 Engine Coolant Bypass Valve (LM2)



4994456

Connector Part Information

Harness Type: Engine
OEM Connector: 35110578
Service Connector: 19371191
Description: 5-Way F 1.2 MCON-LL Series, Sealed (NA)

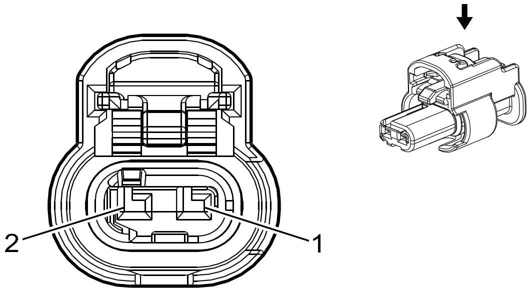
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q74 Engine Coolant Bypass Valve (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU	2976	Coolant Diverter Valve Actuator Control Low	I	—
2	0.75	BU/BN	2977	Coolant Diverter Valve Actuator Control High	I	—
3	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—
4	0.5	BU/GY	2978	Coolant Diverter Valve Position Signal	I	LM2
5	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—

Q80L Engine Mount Solenoid Valve - Left (LM2)



4690744

Connector Part Information

Harness Type: Engine
OEM Connector: 33375932
Service Connector: 19366871
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

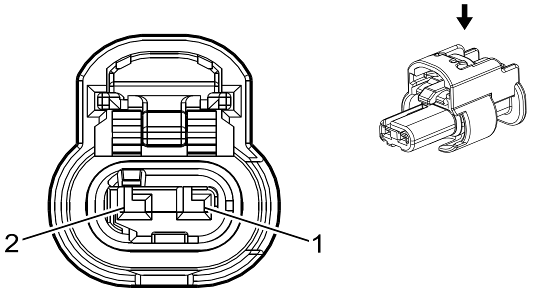
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q80L Engine Mount Solenoid Valve - Left (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/GN	40	Battery Positive Voltage	I	—
2	0.5	BN/BU	4065	Powertrain Mount Solenoid Control 1	I	—

Q80R Engine Mount Solenoid Valve - Right (LM2)



4690744

Connector Part Information

Harness Type: Engine
OEM Connector: 33375932
Service Connector: 19366871
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

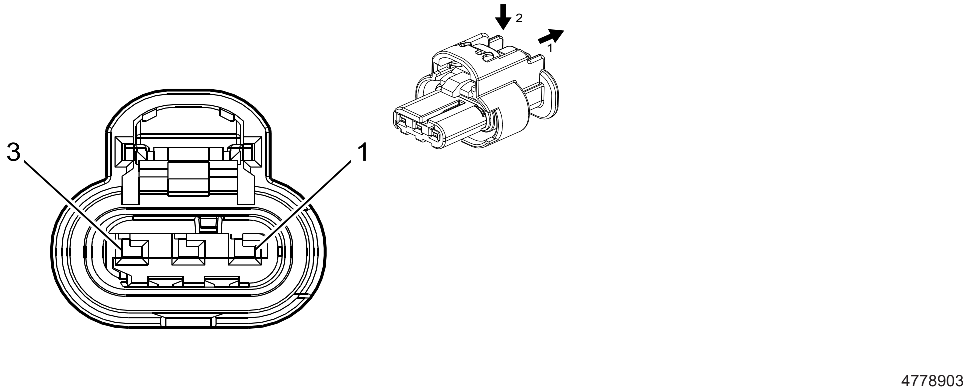
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q80R Engine Mount Solenoid Valve - Right (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/GN	40	Battery Positive Voltage	I	—
2	0.5	BN/YE	4066	Powertrain Mount Solenoid Control 2	I	—

Q97B Engine Coolant Flow Control Valve - Block (L3B)



Connector Part Information

Harness Type: Engine
OEM Connector: 33358808
Service Connector: 19369810
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

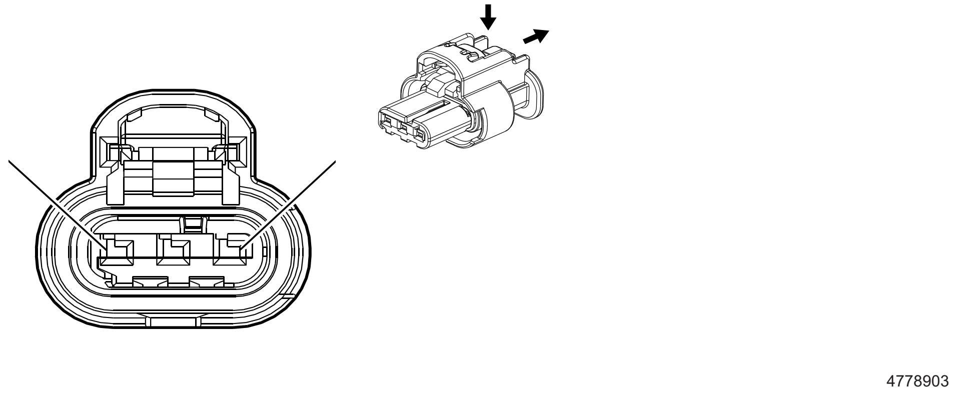
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q97B Engine Coolant Flow Control Valve - Block (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/BN	2732	Local Interconnect Network Bus 32	I	L3B
2	0.5	BK	4450	Ground	I	L3B
3	0.5	VT/BU	5294	Powertrain Main Relay Fused Supply 5	I	L3B

Q97B Engine Coolant Flow Control Valve - Block (LM2)



Connector Part Information

Harness Type: Engine
OEM Connector: 33358808
Service Connector: 19369810
Description: 3-Way F 1.2 MCON-CB Series, Sealed (BK)

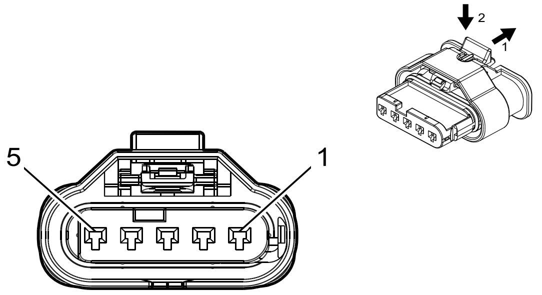
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q97B Engine Coolant Flow Control Valve - Block (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/BN	2732	Local Interconnect Network Bus 32	I	—
2	1	BK	4450	Ground	I	—
3	0.5	VT/BU	5293	Powertrain Main Relay Fused Supply 4	I	—

Q97M Engine Coolant Flow Control Valve - Main (LM2)



4994456

Connector Part Information

Harness Type: Engine
OEM Connector: 35110578
Service Connector: 19371191
Description: 5-Way F 1.2 MCON-LL Series, Sealed (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

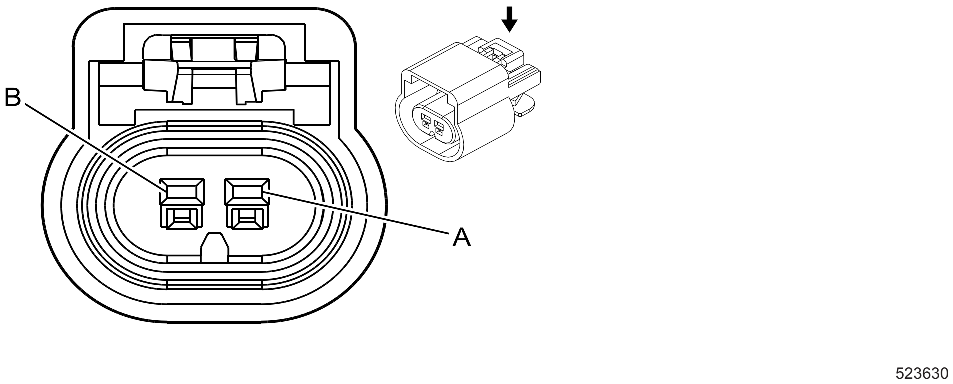
Q97M Engine Coolant Flow Control Valve - Main (LM2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY/BN	2972	Coolant Flow Control Actuator Control High	I	—

Q97M Engine Coolant Flow Control Valve - Main (LM2) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.75	GY/BU	2971	Coolant Flow Control Actuator Control Low	I	—
3	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—
4	0.5	GY	2973	Coolant Flow Control Valve Position Signal	I	—
5	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—

R6A Terminating Resistor - High Speed Bus



Connector Part Information

Harness Type: Chassis
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

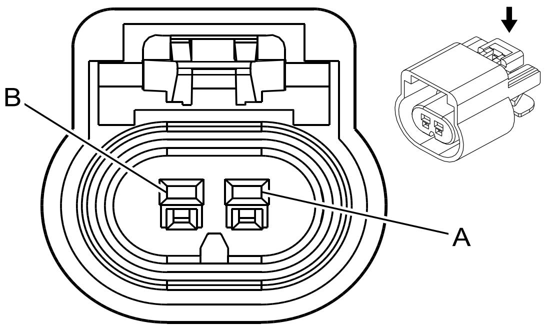
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

R6A Terminating Resistor - High Speed Bus

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
B	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—

R6E Terminating Resistor - High Speed Extension Bus 1 (UEU)



523630

Connector Part Information

Harness Type: Headliner
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

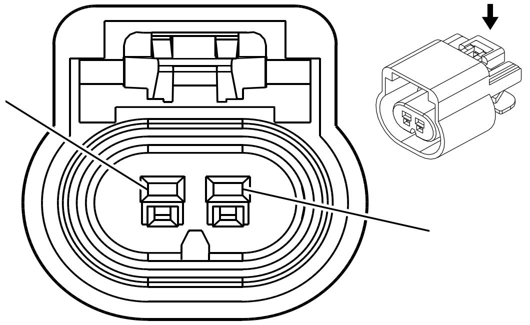
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

R6E Terminating Resistor - High Speed Extension Bus 1 (UEU)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BU/GY	3935	High Speed GMLAN Serial Data (+) 8	I	—
B	0.35	WH/GY	3936	High Speed GMLAN Serial Data (-) 8	I	—

R6F Terminating Resistor - High Speed Extension Bus 2 (IOS/IOT)



523630

Connector Part Information

Harness Type: Chassis
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

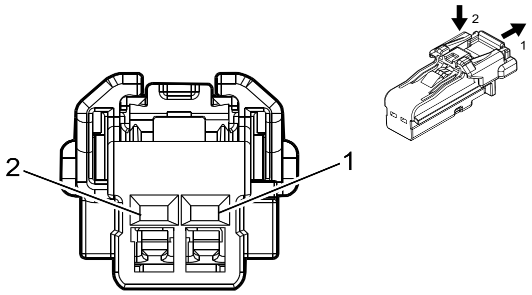
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

R6F Terminating Resistor - High Speed Extension Bus 2 (IOS/IOT)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU/GN	1304	High Speed GMLAN Serial Data (+)9	I	—
B	0.5	WH/GN	1305	High Speed GMLAN Serial Data (-)9	I	—

S2 Transmission Manual Shift Switch



4115691

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35026312
Service Connector: 19352066
Description: 2-Way F 1.2 Series (BK)

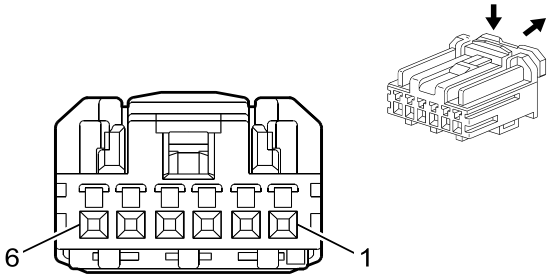
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S2 Transmission Manual Shift Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/YE	5526	Tap Up/Tap Down Switch Signal	I	—
2	0.5	BK/WH	1851	Signal Ground	I	—

S13D Door Lock Switch - Driver



4650256

Connector Part Information

Harness Type: Driver Door Trim
OEM Connector: 33315784
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 HCM Series (BK)

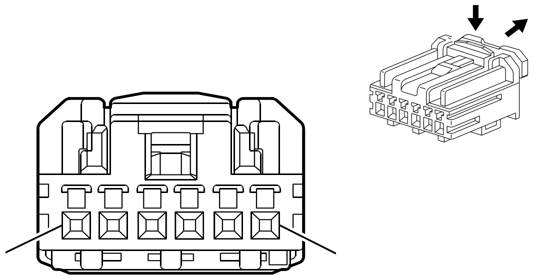
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S13D Door Lock Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	A45
	0.5	YE	6817	LED Backlight Dimming Control	I	AU3
2	0.35	BN/YE	780	Driver Door Lock Switch Lock Signal	I	A45
	0.5	BN/YE	780	Driver Door Lock Switch Lock Signal	I	AU3
3	0.35	BN/WH	781	Driver Door Lock Switch Unlock Signal	I	—
4	0.35	BK	1150	Ground	I	—
5 - 6	—	—	—	Not Occupied	—	—

S13P Door Lock Switch - Passenger (AU3)



4650256

Connector Part Information

Harness Type: Passenger Door Trim
OEM Connector: 33315784
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 HCM Series (BK)

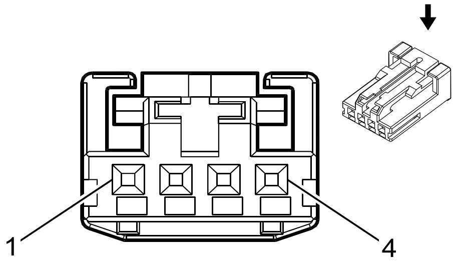
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S13P Door Lock Switch - Passenger (AU3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	—
2	0.35	YE/VT	244	Passenger Door Lock Switch Lock Control	I	—
3	0.35	BN/VT	245	Passenger Door Lock Switch Unlock Control	I	—
4	0.35	BK	1250	Ground	I	—
5 - 6	—	—	—	Not Occupied	—	—

S27 Head-Up Display Switch (UV6)



2717162

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13969166
Service Connector: 13587297
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

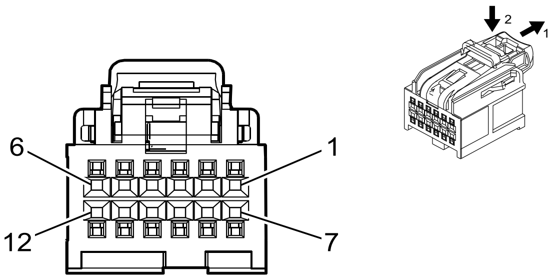
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S27 Head-Up Display Switch (UV6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	—
2	0.35	BK	1850	Ground	I	—
3	0.35	BK/GN	5699	Head Up Display Switch Low Reference	I	—
4	0.35	YE/WH	622	Head Up Display Switch Signal	I	—

S30 Headlamp Switch



4975223

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35016616
Service Connector: 13519750
Description: 12-Way F 0.64 OCS Series (BK)

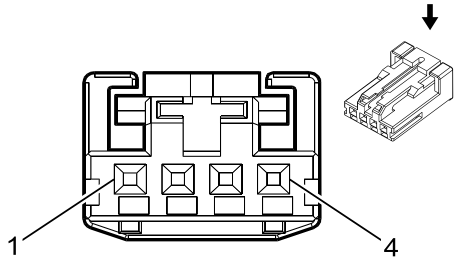
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

S30 Headlamp Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/VT	103	Headlamp Switch On Signal	I	—
2	0.35	YE	6817	LED Backlight Dimming Control	I	—
3	0.35	GN/BN	306	Headlamp Switch Headlamps Off Signal Control	I	—
4	0.35	GY	158	Cargo Lamp Switch Signal	I	—
5	0.35	GN/GY	13	Headlamp Switch Park Lamp Signal	I	—
6	0.5	WH/VT	1430	Exterior Courtesy Lamp Control	I	—
7	0.35	WH/GY	2935	Task Lamp Switch Signal	I	—
8	0.35	BK/WH	1851	Signal Ground	I	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.35	WH/BN	7555	Lighting Control Switch Signal	I	—
12	0.35	YE	7556	Lighting Control Switch Reference	I	—

S32R Seat Heating Switch - Rear (D07+KA6)



2717162

Connector Part Information

Harness Type: Floor Console
OEM Connector: 13969166
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

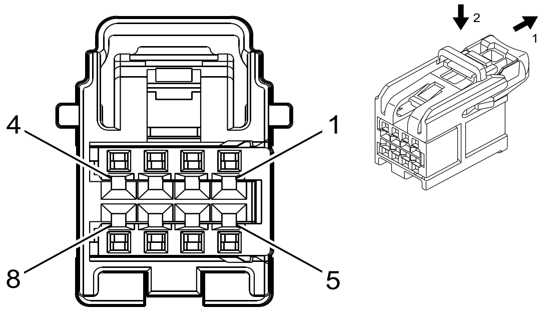
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S32R Seat Heating Switch - Rear (D07+KA6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	1340	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GN/WH	4115	Local Interconnect Network Serial Data Bus 15	I	—
4	0.5	BK	1250	Ground	I	—

S38 Ignition Mode Switch (BTM)



4232228

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15526973
Service Connector: 19353873
Description: 8-Way F 0.64 OCS Series (GY)

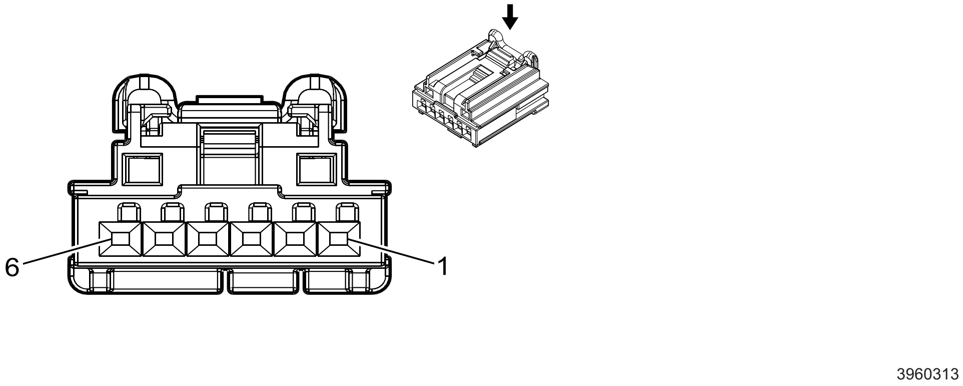
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S38 Ignition Mode Switch (BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU/BK	5719	Ignition Mode Switch Start LED Signal	I	—
2	0.35	BN/BK	5720	Ignition Mode Switch Accessory LED Signal	I	—
3	0.35	BK/WH	1851	Signal Ground	I	—
4	0.35	BU/GN	5723	Ignition Mode Switch Mode Voltage	I	—
5	0.35	YE	6817	LED Backlight Dimming Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	BK/GY	3559	Passive Start Switch 2 Low Reference	I	—
8	0.35	GN/BK	3558	Passive Start Switch Signal 2	I	—

S39 Ignition Switch (-BTM)



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13920633
Service Connector: 19332786
Description: 6-Way F 0.64 Generation Y Series (BK)

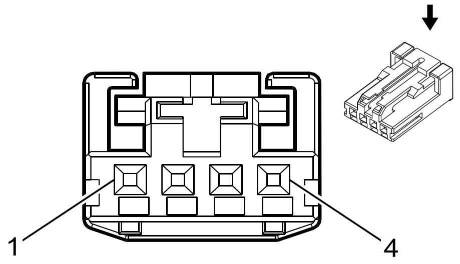
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S39 Ignition Switch (-BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/BK	1073	Ignition Key Resistor Signal	I	—
2	0.5	WH/VT	1020	Off/Run/Crank Ignition Voltage	I	—
3	0.35	VT/YE	4	Accessory Ignition Voltage	I	—
4	0.35	RD/BU	540	Battery Positive Voltage	I	—
5	0.35	VT/BK	3	Run/Crank Ignition 1 Voltage	I	—
6	0.5	WH/VT	1020	Off/Run/Crank Ignition Voltage	I	—

S47D Seat Memory Switch - Driver (A45)



2717162

Connector Part Information

Harness Type: Driver Door Trim
OEM Connector: 13969166
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

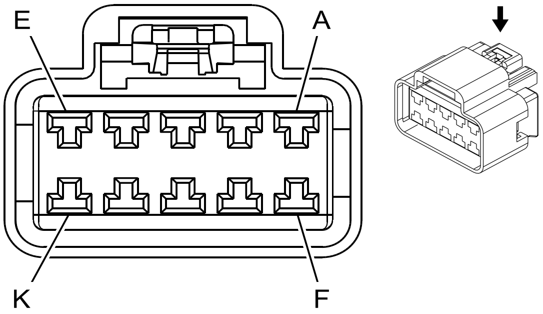
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S47D Seat Memory Switch - Driver (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	6817	LED Backlight Dimming Control	I	—
2	0.35	BK/BU	5978	Memory Switch Low Reference	I	—
3	0.35	WH	615	Memory Seat Switch Signal 1	I	—
4	0.35	BU/GN	614	Memory Seat Switch Set Signal	I	—

S64D Seat Adjuster Switch - Driver (A2X-A45)



623046

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 15326931
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 280 GT Series (BK)

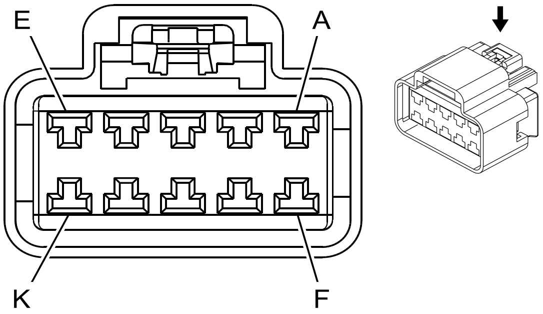
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S64D Seat Adjuster Switch - Driver (A2X-A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	GN/BN	286	Driver Power Seat Front Vertical Motor Up Control	I	—
B	2.5	BK	1150	Ground	I	—
C	1.5	GY/GN	284	Driver Power Seat Horizontal Motor Rearward Control	I	—
D	1.5	YE/BU	285	Driver Power Seat Horizontal Motor Forward Control	I	—
E	2.5	RD/YE	5040	Battery Positive Voltage	I	—
F	1.5	YE	282	Driver Power Seat Rear Vertical Motor Up Control	I	—
G	1.5	BU/YE	277	Driver Power Seat Recline Motor Rearward Control	I	—
H	1.5	GN/YE	276	Driver Power Seat Recline Motor Forward Control	I	—
J	1.5	GY/BU	283	Driver Power Seat Rear Vertical Motor Down Control	I	—
K	1.5	BU/VT	287	Driver Power Seat Front Vertical Motor Down Control	I	—

S64D Seat Adjuster Switch - Driver (A45)



623046

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 15326931
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 280 GT Series (BK)

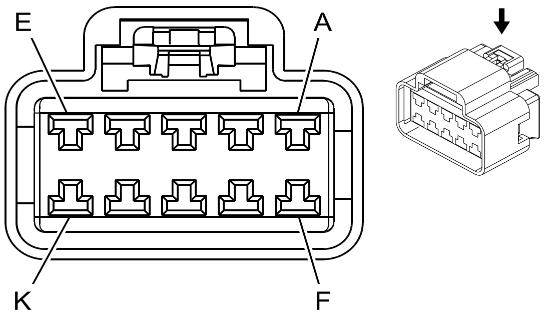
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S64D Seat Adjuster Switch - Driver (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GN/BN	1518	Power Seat Front Vertical Up Switch Signal	I	—
B	—	—	—	Not Occupied	—	—
C	0.5	GY/GN	1523	Power Seat Horizontal Rearward Switch Signal	I	—
D	0.5	YE/BN	1522	Power Seat Horizontal Forward Switch Signal	I	—
E	0.5	BK	1150	Ground	I	—
F	0.5	YE	1519	Power Seat Rear Vertical Up Switch Signal	I	—
G	0.5	GN/GY	1270	Power Seat Recline Rearward Switch Signal	I	—
H	0.5	GY/BK	1269	Power Seat Recline Forward Switch Signal	I	—
J	0.5	YE/BU	1521	Power Seat Rear Vertical Down Switch Signal	I	—
K	0.5	BU/VT	1520	Power Seat Front Vertical Down Switch Signal	I	—

S64P Seat Adjuster Switch - Passenger



623046

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 15326931
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 280 GT Series (BK)

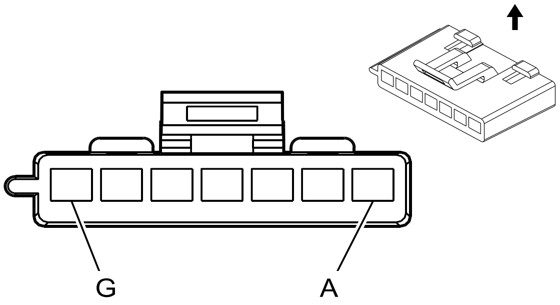
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S64P Seat Adjuster Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	GN/BU	298	Passenger Power Seat Front Vertical Motor Down Control	I	—
B	2.5	BK	1250	Ground	I	—
C	1.5	YE/BU	290	Passenger Power Seat Horizontal Motor Rearward Control	I	—
D	1.5	YE/WH	296	Passenger Power Seat Horizontal Motor Forward Control	I	—
E	2.5	RD/BN	1440	Battery Positive Voltage	I	—
F	1.5	BU/WH	289	Passenger Power Seat Rear Vertical Motor Down Control	I	—
G	1.5	BU/BN	77	Passenger Power Seat Recline Motor Rearward Control	I	—
H	1.5	GN	76	Passenger Power Seat Recline Motor Forward Control	I	—
J	1.5	GN/WH	288	Passenger Power Seat Rear Vertical Motor Up Control	I	—
K	1.5	GN/VT	297	Passenger Power Seat Front Vertical Motor Up Control	I	—

S65D Seat Lumbar Support Switch - Driver (A2X-A45)



73146

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 12052854
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 280 Metri-Pack Series (BK)

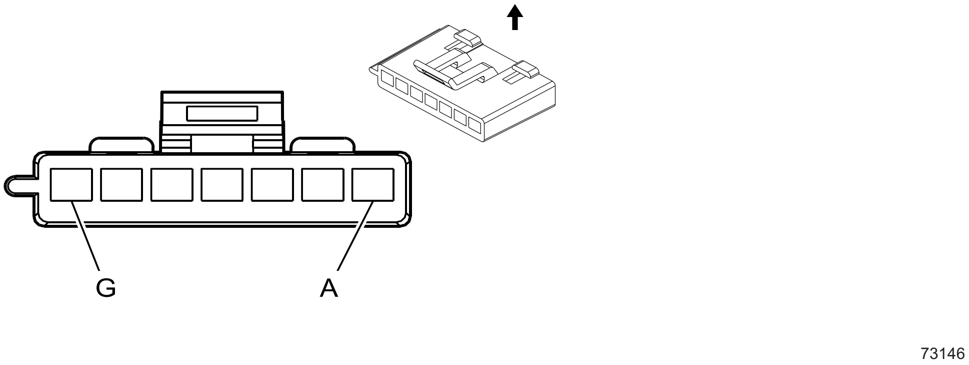
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S65D Seat Lumbar Support Switch - Driver (A2X-A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	—	Not Occupied	—	—
B	0.75	VT	610	Driver Power Seat Lumbar Motor Rearward Control	I	—
C	0.75	BU	611	Driver Power Seat Lumbar Motor Forward Control	I	—
D	—	—	—	Not Occupied	—	—
E	0.75	BK	1150	Ground	I	—
F	—	—	—	Not Occupied	—	—
G	0.75	RD/YE	8840	Battery Positive Voltage	I	—

S65P Seat Lumbar Support Switch - Passenger (A7K)



Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 12052854
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 280 Metri-Pack Series (BK)

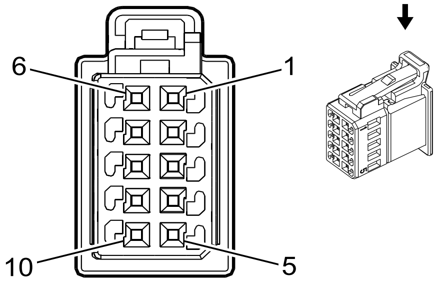
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S65P Seat Lumbar Support Switch - Passenger (A7K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	—	Not Occupied	—	—
B	0.75	VT	210	Passenger Power Seat Lumbar Motor Rearward Control	I	—
C	0.75	BU	211	Passenger Power Seat Lumbar Motor Forward Control	I	—
D	—	—	—	Not Occupied	—	—
E	0.75	BK	1250	Ground	I	—
F	—	—	—	Not Occupied	—	—
G	0.75	RD/YE	8840	Battery Positive Voltage	I	—

S78 Turn Signal/Multifunction Switch



2830955

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13650061
Service Connector: 19299776
Description: 10-Way F 0.64 Micro-Quadlock Series (BK)

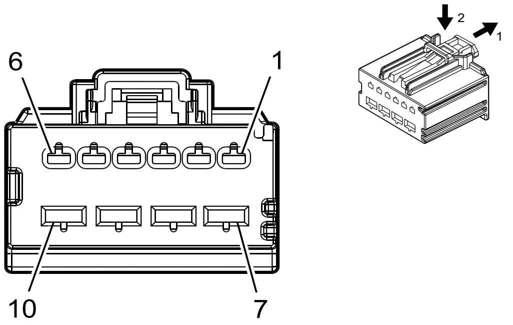
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	144969-1	Lear 25	E	2

S78 Turn Signal/Multifunction Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/GN	663	Hazard Switch Left Turn Signal	I	—
2	0.5	VT/BU	664	Hazard Switch Right Turn Signal	I	—
3	0.5	BK/WH	1851	Signal Ground	I	—
4	0.5	WH/GY	3849	High Beam Auto On/Off Switch Signal	I	—
5	0.35	WH/BK	94	Windshield Washer Switch Signal	I	—
6	0.5	YE/BN	307	Headlamp Switch Flash To Pass Signal	I	—
7	0.5	WH	524	Headlamp Dimmer Switch High Beam Signal	I	—
8	0.5	BK/GY	6009	Windshield Wiper Switch Low Reference	I	—
9	0.5	GY	1715	Windshield Wiper Switch High Signal	I	—
10	0.5	YE/BU	1714	Windshield Wiper Switch Low Signal	I	—

S79LR Window Switch - Left Rear (AEQ+(Extended Cab/Crew Cab))



5035058

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 35152553
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5, 2.8 Series (BK)

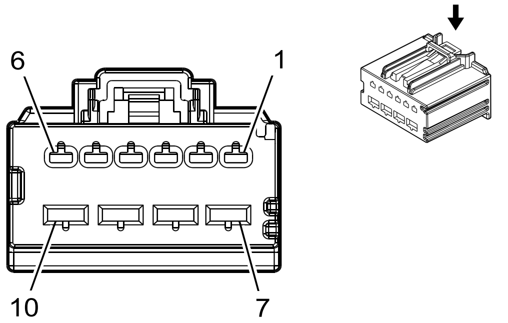
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S79LR Window Switch - Left Rear (AEQ+(Extended Cab/Crew Cab))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/GY	6135	Local Interconnect Network Serial Data Bus 4	I	—
2	0.5 0.5	GY GN	747 747	Left Rear Door Ajar Switch Signal Left Rear Door Ajar Switch Signal	I I	CREW CAB EXTENDED CAB
3	0.75	BK	1150	Ground	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	2.5	BK	1150	Ground	I	—
8	2.5	RD/BU	1842	Battery Positive Voltage	I	—
9	2	BU/VT	668	Power Window Motor Left Rear Up Control	I	—
10	2	YE/BU	669	Power Window Motor Left Rear Down Control	I	—

S79P Window Switch - Passenger (AED)



3791446

Connector Part Information

Harness Type: Passenger Door Trim
OEM Connector: 33175128
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5, 2.8 Series (BK)

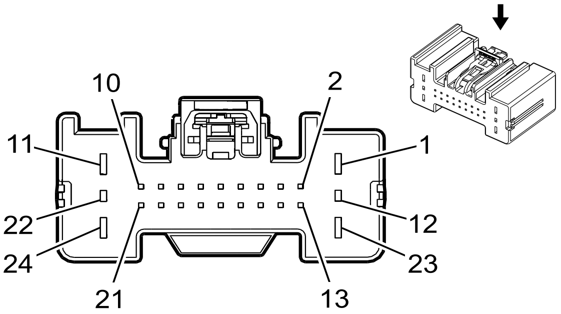
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S79P Window Switch - Passenger (AED)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/YE	6134	Local Interconnect Network Serial Data Bus 3	I	—
	0.5	GN/YE	6134	Local Interconnect Network Serial Data Bus 3	I	—
2	0.5	GY	746	Right Front Door Ajar Switch Signal	I	—
3 - 6	—	—	—	Not Occupied	—	—
7	2.5	BK	1250	Ground	I	—
8	2.5	RD/WH	1340	Battery Positive Voltage	I	—
9	2.5	GN/GY	3387	Power Window Motor Passenger Up Control	I	—
10	2.5	YE/BU	3388	Power Window Motor Passenger Down Control	I	—

S79P Window Switch - Passenger (AEF)



2871905

Connector Part Information

Harness Type: Passenger Door Trim
OEM Connector: 13706537
Service Connector: Service by Harness - See Part Catalog
Description: 24-Way F 0.64, 1.5, 2.8 Series (BK)

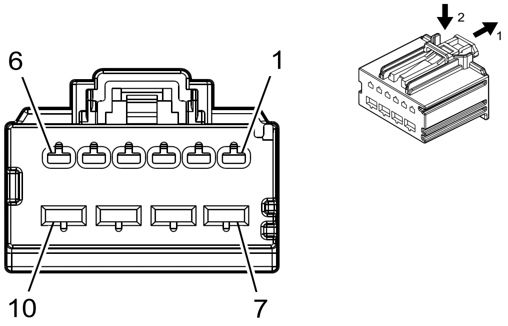
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S79P Window Switch - Passenger (AEF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/YE	3385	Power Window Switch Passenger Down Signal	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GN/BK	3396	Passenger Mirror Motor Right (+) Left (-) Control	I	—
4	0.35	YE/VT	3397	Passenger Mirror Motor Up (+) Down (-) Control	I	—
5	0.5	WH	3398	Passenger Mirror Motor Common Control	I	—
6	0.35	YE/RD	3399	Passenger Mirror Position Sensor 5V Reference	I	—
7	0.35	BU/YE	3401	Passenger Mirror Position Sensor Up (+) Down (-) Signal	I	—
8	0.35	BK/GN	3400	Passenger Mirror Position Sensor Low Reference	I	—
9	0.35	VT/WH	3403	Passenger Mirror Position Sensor Left (-) Right (+) Signal	I	—
10	0.35	YE	6817	LED Backlight Dimming Control	I	—
11	0.5	YE/BK	3384	Power Window Switch Passenger Up Signal	I	—
12	0.5	BU/GY	3414	Passenger Mirror Motor Fold In Control	I	—
13	0.35	VT/GY	3386	Power Window Switch Passenger Express Signal	I	—
14 - 20	—	—	—	Not Occupied	—	—
21	0.35	GN/WH	7530	Local Interconnect Network Serial Data Bus 8	I	—
22	0.5	YE/WH	3413	Passenger Mirror Motor Fold Out Control	I	—
23	2.5	RD/WH	1340	Battery Positive Voltage	I	—
24	2.5	BK	1250	Ground	I	—

S79RR Window Switch - Right Rear (AEQ+(Extended Cab/Crew Cab))



5035058

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 35152553
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5, 2.8 Series (BK)

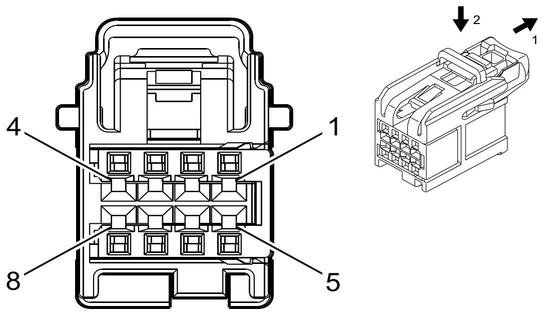
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S79RR Window Switch - Right Rear (AEQ+(Extended Cab/Crew Cab))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/GY	6135	Local Interconnect Network Serial Data Bus 4	I	—
2	0.5	GN	748	Right Rear Door Ajar Switch Signal	I	—
3 - 6	—	—	—	Not Occupied	—	—
7	2.5	BK	1250	Ground	I	—
8	2.5	RD/WH	1340	Battery Positive Voltage	I	—
9	2	BU/GY	670	Power Window Motor Right Rear Up Control	I	—
10	2	GN/BK	671	Power Window Motor Right Rear Down Control	I	—

S86 Vehicle Stability Control Switch



4935776

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15526972
Service Connector: 19370429
Description: 8-Way F 0.64 OCS Series (BK)

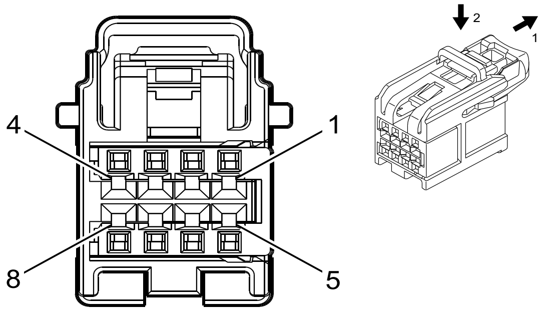
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S86 Vehicle Stability Control Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU/VT	1788	Traction Control Switch Signal 1	I	—
2	0.35	YE	6817	LED Backlight Dimming Control	I	—
3	0.35	BN	7291	Major Endgate Release Switch Signal Interior	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	BK	1050	Ground	I	—
7	0.35	GN/WH	111	Hazard Switch Signal	I	—
8	0.35	GY	1198	Endgate Release Switch Analog Signal Interior	I	—

S126 Drive Mode Select Switch (URC)



4232228

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15526973
Service Connector: 19353873
Description: 8-Way F 0.64 OCS Series (GY)

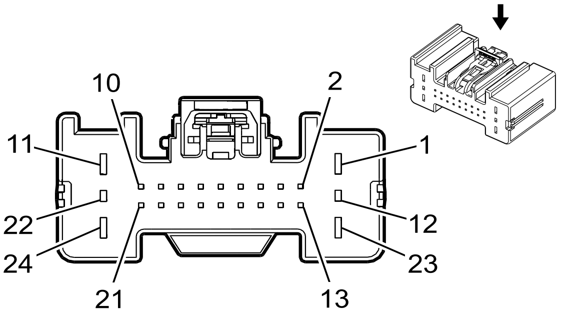
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S126 Drive Mode Select Switch (URC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH/BN	2203	Enhanced Driver Mode 2 Switch Signal	I	—
2	0.35	GY	4109	Driver Mode Switch 5V Reference	I	—
3	0.35	BK/GY	2204	Enhanced Driver Mode 1 Switch Low Reference	I	—
4	0.35	YE	6817	LED Backlight Dimming Control	I	—
5	0.35	BK	1850	Ground	I	—
6	0.35	VT/BN	300	Run Ignition 3 Voltage	I	—
7	0.35	BN	1560	Neutral Indicator Control	I	—
8	—	—	—	Not Occupied	—	—

S146 Window/Outside Rearview Mirror Switch - Driver



2871905

Connector Part Information

Harness Type: Driver Door Trim
OEM Connector: 13706537
Service Connector: Service by Harness - See Part Catalog
Description: 24-Way F 0.64, 1.5, 2.8 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

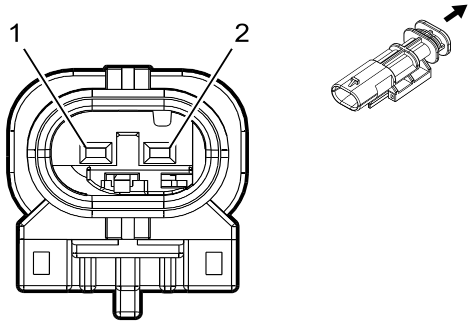
S146 Window/Outside Rearview Mirror Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35 0.5	GY GY	3380 3380	Power Window Switch Driver Down Signal Power Window Switch Driver Down Signal	I I	— —
2	0.35	YE/VT	3397	Passenger Mirror Motor Up (+) Down (-) Control	I	—
3	0.35 0.5	WH WH	3398 3398	Passenger Mirror Motor Common Control Passenger Mirror Motor Common Control	I I	— —
4	0.35	GN/BK	3396	Passenger Mirror Motor Right (+) Left (-) Control	I	—
5	0.35	GN	3381	Power Window Switch Driver Express Signal	I	—
6	0.35	BN/BK	3389	Driver Mirror Motor Right (+) Left (-) Control	I	—
7	0.35	VT/BU	3390	Driver Mirror Motor Up (+) Down (-) Control	I	—
8	0.35	YE/BN	3391	Driver Mirror Motor Common Control	I	—
9	0.35 0.5	GN/YE GN/YE	6134 6134	Local Interconnect Network Serial Data Bus 3 Local Interconnect Network Serial Data Bus 3	I I	— —
10	—	—	—	Not Occupied	—	—
11	0.35 0.5	GN/WH GN/WH	3379 3379	Power Window Switch Driver Up Signal Power Window Switch Driver Up Signal	I I	— —
12	0.35	WH/GN	3412	Driver Mirror Motor Fold In Control	I	—
13	—	—	—	Not Occupied	—	—
14	0.35	WH/VT	3270	Driver Door Lock Motor Status Signal	I	—
15	0.35	BU/VT	1124	Door Lock Key Switch Unlock Signal	I	—
16	0.35	WH/YE	3395	Driver Mirror Position Sensor Left (-) Right (+) Signal	I	—

S146 Window/Outside Rearview Mirror Switch - Driver (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
17	0.35 0.5	VT/RD VT/RD	3392 3392	Driver Mirror Position Sensor 5V Reference Driver Mirror Position Sensor 5V Reference	I I	— —
18	0.35	GY/BN	3394	Driver Mirror Position Sensor Up (+) Down (-) Signal	I	—
19	0.35	BK/BN	3393	Driver Mirror Position Sensor Low Reference	I	—
20	—	—	—	Not Occupied	—	—
21	0.35 0.5	GN/WH GN/WH	7530 7530	Local Interconnect Network Serial Data Bus 8 Local Interconnect Network Serial Data Bus 8	I I	— —
22	0.35	GY/WH	3411	Driver Mirror Motor Fold Out Control	I	—
23	0.35 0.5	RD/VT RD/VT	1940 1940	Battery Positive Voltage Battery Positive Voltage	I I	— —
24	0.35 0.5	BK BK	1150 1150	Ground Ground	I I	— —

S157 Pickup Box Endgate Unlatch Switch (QK1/QK2/QT5)



4994411

Connector Part Information

Harness Type: Endgate
OEM Connector: 35068608
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MCON Series (GY)

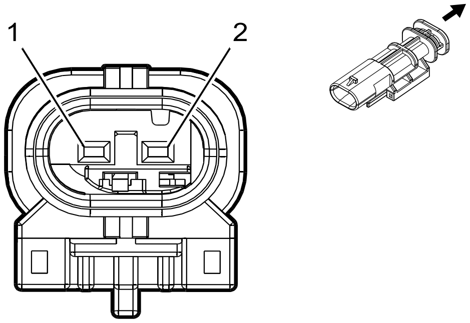
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S157 Pickup Box Endgate Unlatch Switch (QK1/QK2/QT5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	7292	Major Endgate Release Switch Signal Exterior	I	—
2	0.75	BK	1450	Ground	I	—

S157 Pickup Box Endgate Unlatch Switch (QT5)



Connector Part Information

Harness Type: Endgate
OEM Connector: 35068608
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MCON Series (GY)

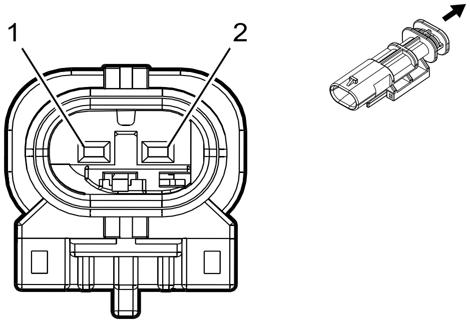
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S157 Pickup Box Endgate Unlatch Switch (QT5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	7292	Major Endgate Release Switch Signal Exterior	I	—
2	0.75	BK	1450	Ground	I	—

S159E Pickup Box Endgate Control Switch - Exterior (QK2/QT5)



Connector Part Information

Harness Type: Endgate
OEM Connector: 33365831
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MCON Series (GY)

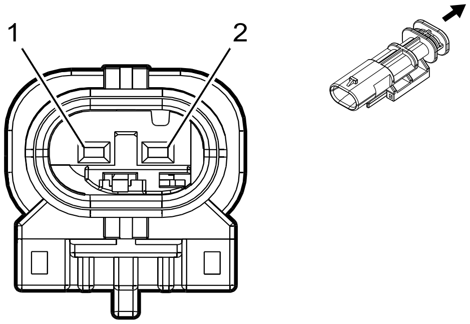
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S159E Pickup Box Endgate Control Switch - Exterior (QK2/QT5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	7294	Minor Endgate Release Switch Discrete Signal Exterior	I	—
2	0.75	BK	1450	Ground	I	—

S159E Pickup Box Endgate Control Switch - Exterior (QT6)



4994411

Connector Part Information

Harness Type: Endgate
OEM Connector: 35068608
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MCON Series (GY)

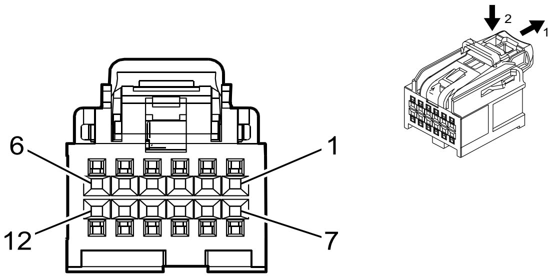
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S159E Pickup Box Endgate Control Switch - Exterior (QT6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE	1144	Endgate Release Switch Discrete Signal Exterior	I	—
2	0.75	BK	1450	Ground	I	—

S171L Instrument Panel Center Accessory Function Switch - Left



4975223

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35016616
Service Connector: 13519750
Description: 12-Way F 0.64 OCS Series (BK)

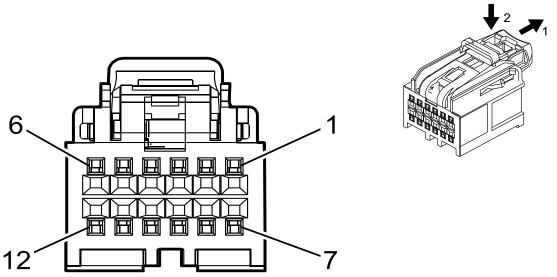
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

S171L Instrument Panel Center Accessory Function Switch - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/GN	2555	Rear Park Assist Disable Signal	I	—
2	0.35	YE	6817	LED Backlight Dimming Control	I	—
3	0.5	BU/WH	3119	Roof Rail Air Bag Defeat Switch Signal	I	—
4	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	—
5	0.35	WH	3152	Lane Departure Warning Indicator Control	I	—
6	0.35	BU/YE	6844	ABS/TCS Hill Descent Control Switch Signal	I	—
7	0.5	WH	6816	Indicator Dimming Control	I	—
8	0.35	GN/BN	5852	Rear Park Assist LED Disable Signal	I	—
9	0.5	BK	1050	Ground	I	—
10	0.5	BN/WH	3895	Roof Rail Air Bag Defeat Switch Low Reference	I	—
11	0.35	GN	1110	Auto Stop Start Indicator Control	I	—
12	0.35	GN	1111	Auto Stop Start Switch Signal	I	—

S171R Instrument Panel Center Accessory Function Switch - Right



4997362

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35016613
Service Connector: 13519752
Description: 12-Way F 0.64 OCS Series (BN)

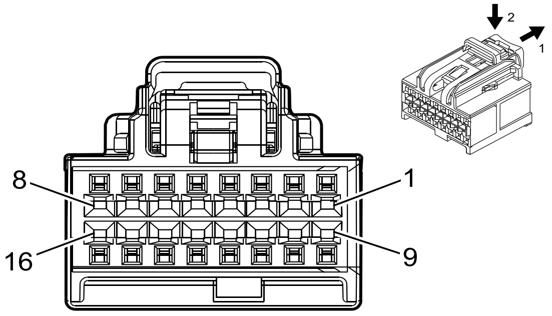
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

S171R Instrument Panel Center Accessory Function Switch - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY/WH	4630	AC Power Outlet Switch Signal	I	—
2	0.35	YE	6817	LED Backlight Dimming Control	I	—
3	0.35	BU/YE	6844	ABS/TCS Hill Descent Control Switch Signal	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.35	GN	1110	Auto Stop Start Indicator Control	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	BN/WH	7462	Running Boards Disable Signal	I	—
9	0.5	BK	1050	Ground	I	—
10	0.35	WH	6816	Indicator Dimming Control	I	—
11	0.35	YE	7755	AC Power Outlet Status Indicator Control	I	—
12	0.35 0.35	GN BU/GY	1111 553	Auto Stop Start Switch Signal Shift Select Switch Performance Signal	I I	KL9 -URC

S172 Auxiliary Multifunction Switch (9L7)



4873243

Connector Part Information

Harness Type: Auxiliary Instrument Panel
OEM Connector: 35016343
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 0.64 OCS Series (BK)

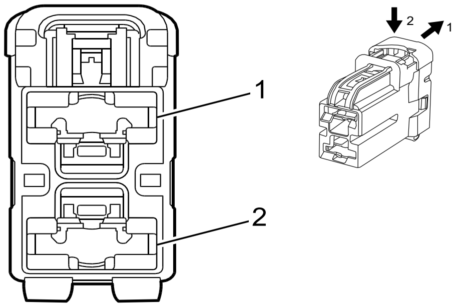
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S172 Auxiliary Multifunction Switch (9L7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	YE	6817	LED Backlight Dimming Control	I	—
3	0.35	WH	6816	Indicator Dimming Control	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.35	BK	961	—	I	—
7	0.35	BK	962	—	I	—
8	0.35	BK	963	—	I	—
9	0.35 0.35	WH/VT BK	6821 964	Surveillance Switch Signal —	I I	9L7 9L7
10	0.5	WH/BK	5990	Emergency Lamp Switch Signal	I	—
11	—	—	—	Not Occupied	—	—
12	0.75	BK	1050	Ground	I	—
13 - 16	—	—	—	Not Occupied	—	—

T1 Accessory DC/AC Power Inverter Module X1 (KI4/KI5)



2453116

Connector Part Information

Harness Type: Body
OEM Connector: 13581928
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 9.5 Series (BK)

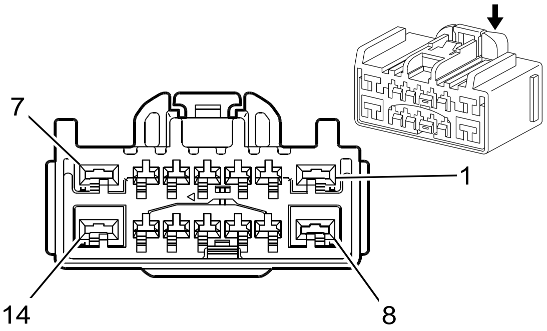
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T1 Accessory DC/AC Power Inverter Module X1 (KI4/KI5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	BN/BK	4629	DC/AC Inverter Control	I	—
2	5	BK	1150	Ground	I	—

T1 Accessory DC/AC Power Inverter Module X2 (KI4/KI5)



1540775

Connector Part Information

Harness Type: Power Inverter Module Jumper
OEM Connector: 33356826
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F 1.5, 2.8 Series (BU)

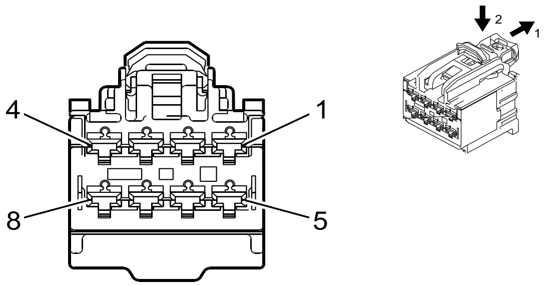
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T1 Accessory DC/AC Power Inverter Module X2 (KI4/KI5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	5683	120 V AC Phase A	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	VT/YE	5985	Accessory Wakeup Serial Data	I	—
4	0.35	WH/GN	4628	DC/AC Inverter Relay Control	I	—
5	0.35	BU/BN	6807	DC To AC Inverter Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	BK/WH	2264	120 VAC Phase A 2	I	—
8	0.75	RD	5684	120 V AC Phase B	I	—
9	0.35	Bare	514	Low Reference	I	—
10	0.35	GN	5060	Low Speed GMLAN Serial Data	I	—
11	—	—	—	Not Occupied	—	—
12	0.75	GN/BN	2266	DC To AC Inverter Control 2	I	—
13	0.35	Bare	2257	Drain Wire	I	—
14	0.75	RD/WH	2265	120 VAC Phase B 2	I	—

T3 Audio Amplifier X1 (UQA)



4875738

Connector Part Information

Harness Type: Body
OEM Connector: 33223792
Service Connector: 19369366
Description: 8-Way F 2.8 OCS Series (BK)

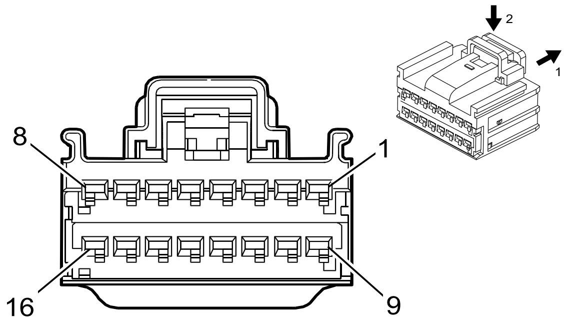
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T3 Audio Amplifier X1 (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BU/GY	346	Left/Rear Subwoofer Speaker Control (+)	I	—
2	0.75	YE	200	Right Front Speaker Control (+) 1	I	—
3	0.75	BU	201	Left Front Speaker Control (+) 1	I	—
4	2.5	RD/YE	3740	Battery Positive Voltage	I	—
5	2.5	GN/BK	1794	Left/Rear Subwoofer Speaker (-) Low Reference	I	—
6	0.75	YE/BK	117	Right Front Speaker Signal (-) 1	I	—
7	0.75	BN/BU	118	Left Front Speaker Signal (-) 1	I	—
8	2.5	BK/WH	2751	Signal Ground	I	—

T3 Audio Amplifier X2 (UQA)



4332214

Connector Part Information

Harness Type: Body
OEM Connector: 15512506
Service Connector: 13591061
Description: 16-Way F 1.5 OCS Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

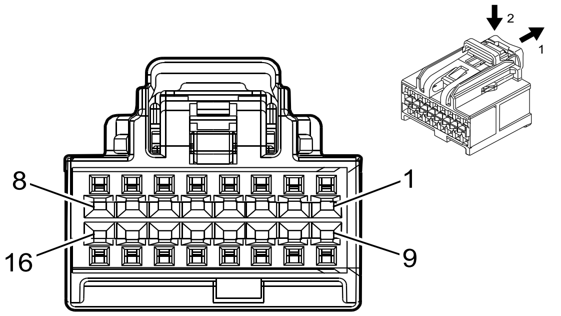
T3 Audio Amplifier X2 (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	BN/BK	1953	Right Front Midrange Speaker (-) Low Reference	I	—
3	0.75	BU/VT	1857	Left Front Midrange Speaker Control (+)	I	—
4	0.5	WH	46	Right Rear Speaker Control (+)	I	—
5	0.5	GN	199	Left Rear Speaker Control (+)	I	—
6 - 9	—	—	—	Not Occupied	—	—
10	0.75	WH/YE	1853	Right Front Midrange Speaker Control (+)	I	—

T3 Audio Amplifier X2 (UQA) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
11	0.75	BU/BN	1957	Left Front Midrange Speaker (-) Low Reference	I	—
12	0.5	BU/BK	115	Right Rear Speaker Signal (-)	I	—
13	0.5	GN/BK	116	Left Rear Speaker Signal (-)	I	—
14 - 16	—	—	—	Not Occupied	—	—

T3 Audio Amplifier X3 (UQA)



4873243

Connector Part Information

Harness Type: Body
OEM Connector: 35016343
Service Connector: 13519738
Description: 16-Way F 0.64 OCS Series (BK)

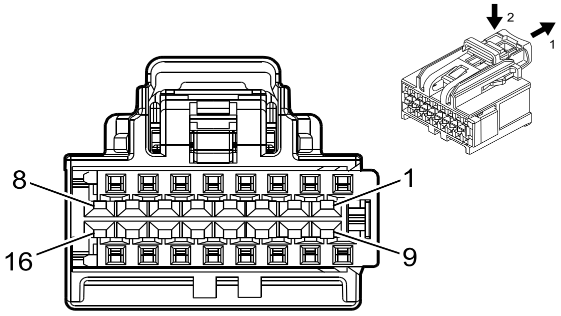
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

T3 Audio Amplifier X3 (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	−UVI−UV2
	0.75	GY/GN	1102	Low Speed GMLAN Serial Data #2	I	UVI/UV2
2 - 16	—	—	—	Not Occupied	—	—

T3 Audio Amplifier X4 (UQA)



4256181

Connector Part Information

Harness Type: Body
OEM Connector: 35016345
Service Connector: 13519740
Description: 16-Way F 0.64 OCS Series (BN)

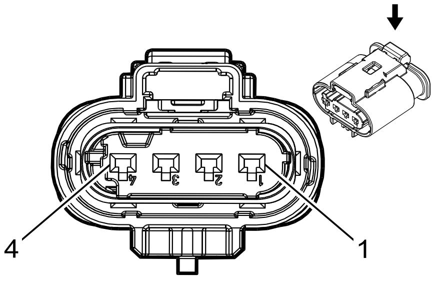
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

T3 Audio Amplifier X4 (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.35 0.35	GY/BK GY/BK	7215 7215	Ethernet Bus 6 (+) Ethernet Bus 6 (+)	I I	UQA UQA/UQH
4	0.35 0.35	BN/BK BN/BK	7214 7214	Ethernet Bus 6 (-) Ethernet Bus 6 (-)	I I	UQA UQA/UQH
5 - 16	—	—	—	Not Occupied	—	—

T8A Ignition Coil 1 (L3B)



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13815341
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

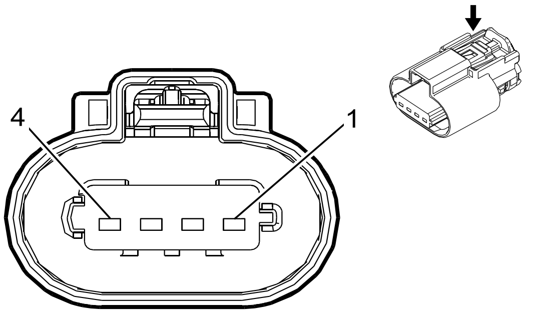
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8A Ignition Coil 1 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	450	Ground	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	BU/VT	2121	Ignition Control 1	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8A Ignition Coil 1 (L82/L84/L87/LV3)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

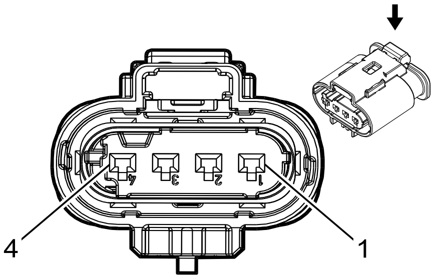
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8A Ignition Coil 1 (L82/L84/L87/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 0.75	BK BK	4450 4550	Ground Ground	I I	— —
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	BU/VT	2121	Ignition Control 1	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8B Ignition Coil 2 (L3B)



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13815341
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

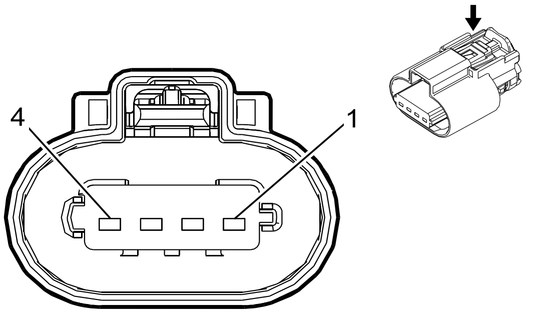
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8B Ignition Coil 2 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	450	Ground	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	BU/WH	2122	Ignition Control 2	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8B Ignition Coil 2 (L82/L84/L87/LV3)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

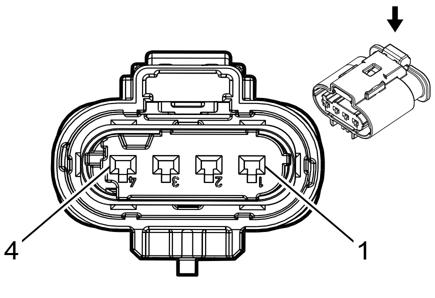
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8B Ignition Coil 2 (L82/L84/L87/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 0.75	BK BK	350 4550	Ground Ground	I I	— —
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	BU/WH	2122	Ignition Control 2	I	—
4	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—

T8C Ignition Coil 3 (L3B)



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13815341
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

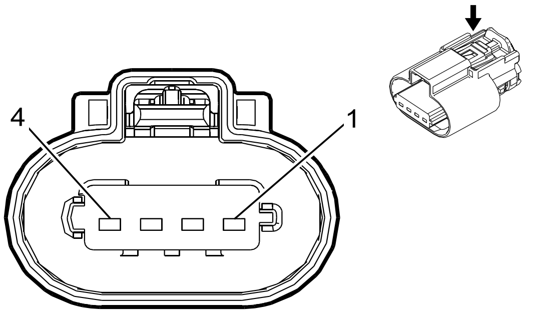
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8C Ignition Coil 3 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	450	Ground	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	GN/BU	2123	Ignition Control 3	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8C Ignition Coil 3 (L82/L84/L87/LV3)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

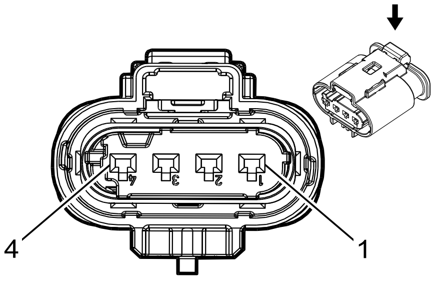
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8C Ignition Coil 3 (L82/L84/L87/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 0.75	BK BK	4450 4550	Ground Ground	I I	— —
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	GN/BU	2123	Ignition Control 3	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8D Ignition Coil 4 (L3B)



2717079

Connector Part Information

Harness Type: Engine
OEM Connector: 13815341
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

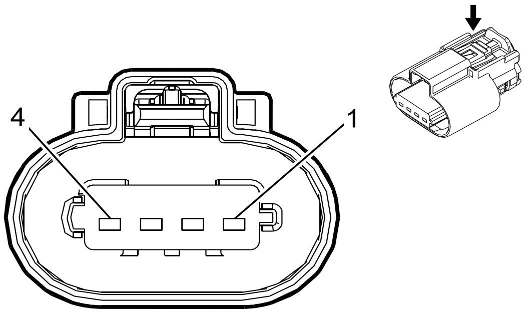
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8D Ignition Coil 4 (L3B)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	450	Ground	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	YE/BU	2124	Ignition Control 4	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8D Ignition Coil 4 (L82/L84/L87/LV3)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

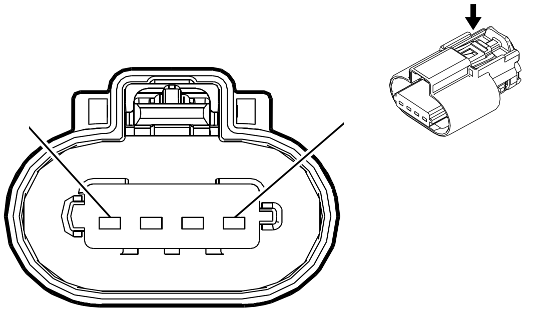
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8D Ignition Coil 4 (L82/L84/L87/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 0.75	BK BK	4450 4550	Ground Ground	I I	— —
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	YE/BU	2124	Ignition Control 4	I	—
4	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—

T8E Ignition Coil 5 (L82/L84/L87/LV3)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

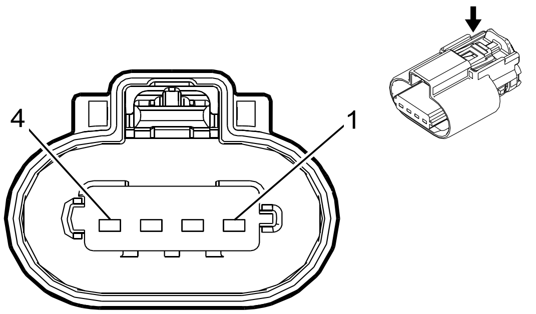
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8E Ignition Coil 5 (L82/L84/L87/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 0.75	BK BK	4550 4450	Ground Ground	I I	L82/L84/L87 LV3
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	BU/GY	2125	Ignition Control 5	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8F Ignition Coil 6 (L82/L84/L87/LV3)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

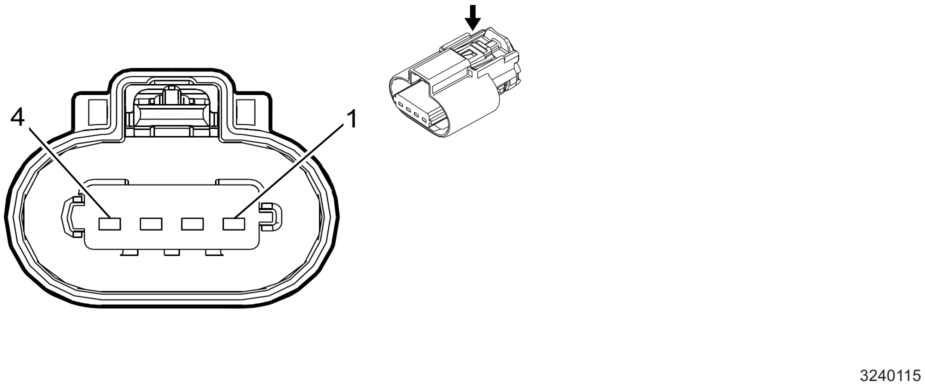
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8F Ignition Coil 6 (L82/L84/L87/LV3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 0.5	BK BK	4550 4450	Ground Ground	I I	L82/L84/L87 LV3
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	BN/BU	2126	Ignition Control 6	I	—
4	0.75 0.5	VT/BU VT/BU	5292 5292	Powertrain Main Relay Fused Supply 3 Powertrain Main Relay Fused Supply 3	I I	L82/L84/L87 LV3

T8G Ignition Coil 7 (L82/L84/L87)



Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

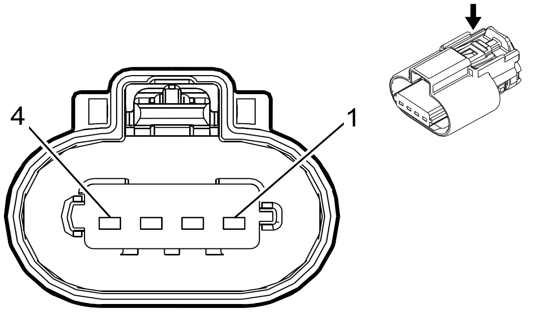
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8G Ignition Coil 7 (L82/L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	4550	Ground	I	—
2	0.5	BK/BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	GN/GY	2127	Ignition Control 7	I	—
4	0.75	VT/BU	5291	Powertrain Main Relay Fused Supply 2	I	—

T8H Ignition Coil 8 (L82/L84/L87)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

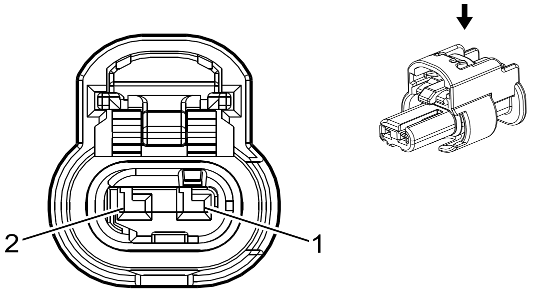
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8H Ignition Coil 8 (L82/L84/L87)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	4550	Ground	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	VT/WH	2128	Ignition Control 8	I	—
4	0.75	VT/BU	5292	Powertrain Main Relay Fused Supply 3	I	—

T10B Keyless Entry Antenna - Instrument Panel Compartment (BTM)



4649903

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33327048
Service Connector: 19366858
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

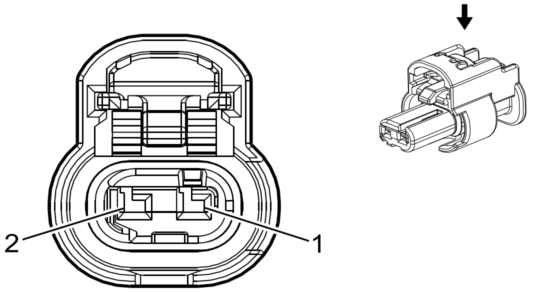
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T10B Keyless Entry Antenna - Instrument Panel Compartment (BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/BK	3552	Passive Start Interior Antenna 1 Signal Hi	I	—
2	0.5	WH	3553	Passive Start Interior Antenna 1 Signal Lo	I	—

T10E Keyless Entry Antenna - Rear Compartment (BTM)



4649903

Connector Part Information

Harness Type: Chassis
OEM Connector: 33327048
Service Connector: 19366858
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

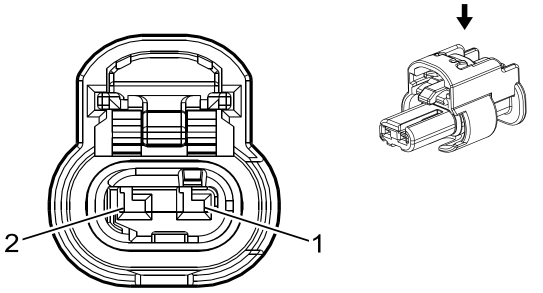
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T10E Keyless Entry Antenna - Rear Compartment (BTM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/GN	3568	Passive Entry Rear Closure Antenna Signal Hi	I	—
2	0.5	GN/GY	3569	Passive Entry Rear Closure Antenna Signal Lo	I	—

T10J Keyless Entry Antenna - Center Console Front (BTM+D07)



4649903

Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 33327048
- Service Connector: Service by Harness - See Part Catalog
- Description: 2-Way F 1.2 MCON Series, Sealed (BK)

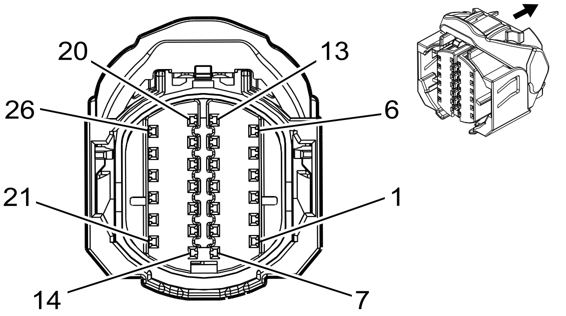
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T10J Keyless Entry Antenna - Center Console Front (BTM+D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	3554	Passive Start Interior Antenna 2 Signal Hi	I	—
2	0.5	GY/BK	3555	Passive Start Interior Antenna 2 Signal Lo	I	—

T12 Automatic Transmission Assembly X1 (MQB)



4420489

Connector Part Information

- Harness Type: Engine
- OEM Connector: 33178413

Service Connector: 13596549
Description: 26-Way F 1.2 MCON-CB Series, Sealed (BK)

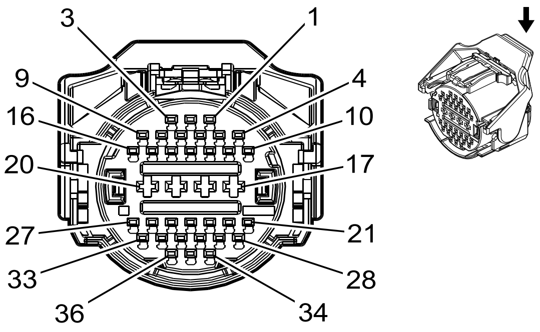
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

T12 Automatic Transmission Assembly X1 (MQB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/YE	6353	Input Speed Signal	I	—
2	0.5	GN/VT	4510	Transmission Intermediate Speed Signal	I	—
3	0.5	BN/WH	6254	Transmission Input Speed Sensor Signal	I	—
4	0.5	GY/BU	6358	Output Speed Signal	I	—
5	0.5 0.5	GN/YE VT/BU	5724 5724	Ignition Mode Switch Mode Control Ignition Mode Switch Mode Control	I I	MQB MQB
6	0.5	WH/BU	5726	Ignition Mode Switch Mode Control Backup	I	—
7	0.5	YE/GN	4170	Transmission Position Sensor B 9V Reference	I	—
8	0.5	YE/BU	4171	Transmission Position Sensor A 9V Reference	I	—
9	0.5	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—
10	0.75	RD/VT	7940	Battery Positive Voltage	I	—
11	0.5	GN/GY	6387	Transmission High Side Driver 1 Signal Driver	I	—
12	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	I	—
13	0.5	BN/WH	585	Transmission Oil Temperature Sensor Signal	I	—
14	0.5	YE/BN	6404	Clutch E Control	I	—
15	0.5	GY/GN	6403	Clutch D Control	I	—
16	0.5	GY	6402	Clutch C Control	I	—
17	1 1.5	BK BK	4450 4450	Ground Ground	I I	— —
18	0.5	GN/WH	2968	Transmission Auxiliary Oil Pump Control	I	—
19	0.5	GN/BK	7819	Default Disable Solenoid Control	I	—
20	0.5	BK/GN	580	Engine Control Sensors Low Reference (2)	I	—
21	0.5	VT	4509	Transmission Clutch F Control	I	—
22	0.5	WH/BU	4507	Transmission Clutch H Control	I	—
23	0.5	WH	4508	Transmission Clutch G Control	I	—
24	0.5	GN/WH	1530	Transmission Mainline Pressure Solenoid Control	I	—
25	0.5	VT/WH	422	Torque Converter Clutch Solenoid Control	I	—
26	0.5	BK/BN	586	Transmission Oil Temperature Sensor Low Reference	I	—

T12 Automatic Transmission Assembly X1 (MQE)



3621473

Connector Part Information

Harness Type: Engine
OEM Connector: 15532799
Service Connector: 19332681
Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1241388-1	Lear 17	E	C
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

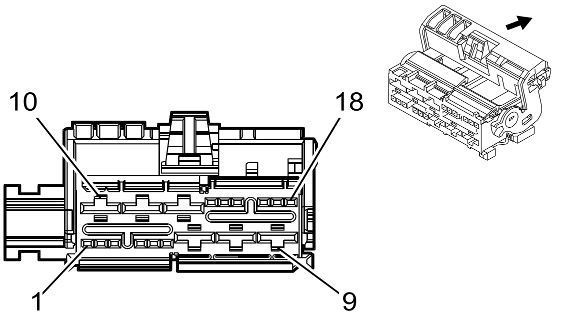
T12 Automatic Transmission Assembly X1 (MQE)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN/WH	6380	TCC On/Off Solenoid A Control	II	—
2	0.5	GN/GY	6387	Transmission High Side Driver 1 Signal Driver	II	—
3	0.5	VT/WH	422	Torque Converter Clutch Solenoid Control	II	—
4	0.5	GN/WH	1530	Transmission Mainline Pressure Solenoid Control	II	—
5	0.5	BN	6400	Clutch A Control	II	—
6	0.5	BU	6401	Clutch B Control	II	—
7	0.5	YE/BN	6210	TCC On/Off Solenoid B Control	II	—
8	0.5	WH/GY	4578	Surge Accumulator Solenoid Low Side Control	II	—
9	—	—	—	Not Occupied	—	—
10	0.5	GY	6402	Clutch C Control	II	—
11	0.5	BK/BN	586	Transmission Oil Temperature Sensor Low Reference	II	—
12	0.5	BN/WH	585	Transmission Oil Temperature Sensor Signal	II	—
13	0.5	WH	4508	Transmission Clutch G Control	II	—
14	0.5	WH/BU	4507	Transmission Clutch H Control	II	—
15 - 17	—	—	—	Not Occupied	—	—
18	0.5	GN/GY	6387	Transmission High Side Driver 1 Signal Driver	I	—
19	0.5	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—
20	—	—	—	Not Occupied	—	—

T12 Automatic Transmission Assembly X1 (MQE) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
21	0.5	GN/YE	3337	Transmission Internal Mode Switch Mode Control A	II	—
22	0.5	BN/WH	3338	Transmission Internal Mode Switch Mode Control B	II	—
23	—	—	—	Not Occupied	—	—
24	0.5	GY/BU	6358	Output Speed Signal	II	—
25	0.5	YE/GN	4170	Transmission Position Sensor B 9V Reference	II	—
26	0.5	BN/WH	6254	Transmission Input Speed Sensor Signal	II	—
27	0.5	YE/BU	4171	Transmission Position Sensor A 9V Reference	II	—
28	—	—	—	Not Occupied	—	—
29	0.5	WH/RD	480	Engine Control Sensors 5 Volt Reference (2)	II	—
30	0.5	BK/GY	626	Engine Control Sensors Low Reference (3)	II	—
31	—	—	—	Not Occupied	—	—
32	0.5	GN/VT	4510	Transmission Intermediate Speed Signal	II	—
33 - 36	—	—	—	Not Occupied	—	—

T19 Power Supply Transformer (KL9)



3825662

Connector Part Information

Harness Type: Body
OEM Connector: 15534193
Service Connector: 19330678
Description: 18-Way F 0.64 MTS, 6.3 MCP Series (BK)

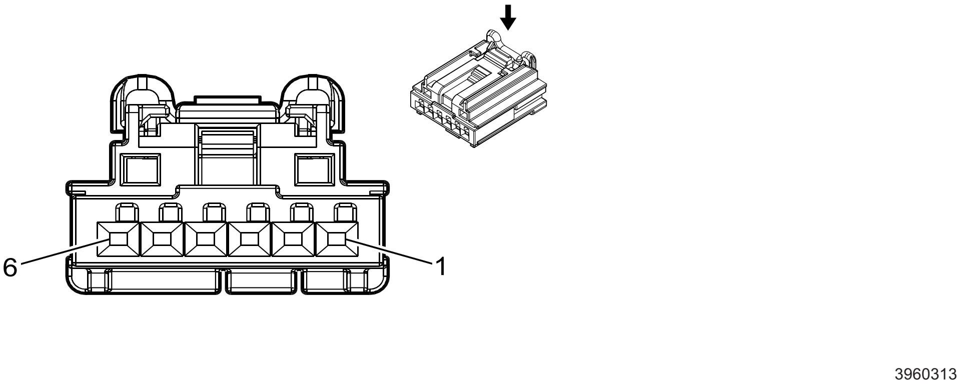
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	1241408-1	Lear 28	A	B
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

T19 Power Supply Transformer (KL9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.35	VT/YE	5985	Accessory Wakeup Serial Data	II	—
5	0.5	YE/BK	625	Starter Enable Relay Control	II	—
6	0.5	VT/GN	1739	Run/Crank Ignition 1 Voltage	II	—
7	2.5	BK	1250	Ground	I	—
8	2.5	RD/YE	8140	Battery Positive Voltage	I	—
9	2.5	RD/GN	2173	12V Regulated Supply Voltage 2	I	—
10	2.5	RD/YE	2172	12V Regulated Supply Voltage 1	I	—
11	2.5	RD/WH	8040	Battery Positive Voltage	I	—
12	2.5	BK	1150	Ground	I	—
13	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	II	—
14	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	II	—
15	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	II	—
16	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	II	—
17	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	II	—
18	0.5	BU/BK	7493	High Speed GMLAN Serial Data (+)3	II	—

T22 Mobile Device Wireless Charger Module (K4C)



Connector Part Information

Harness Type: Floor Console
OEM Connector: 13920633
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Generation Y Series (BK)

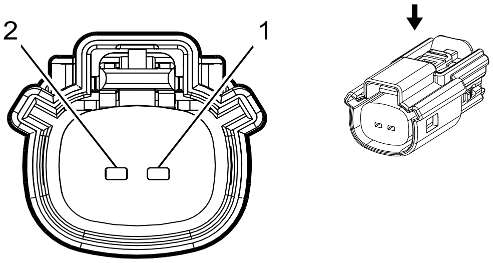
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T22 Mobile Device Wireless Charger Module (K4C)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	4601	Retained Accessory Power Fused Control	I	—
2	0.5	BK	1250	Ground	I	—
3	0.35	GN	4512	Wireless Charging System Charge Indicator Control	I	—
4	0.5	BN	4511	Wireless Charging System Fault Indicator Control	I	—
5 - 6	—	—	—	Not Occupied	—	—

TBD1 Pickup Box Endgate Latch (QK1)



2474713

Connector Part Information

Harness Type: Endgate
OEM Connector: 13782480
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 MX Series, Sealed (BK)

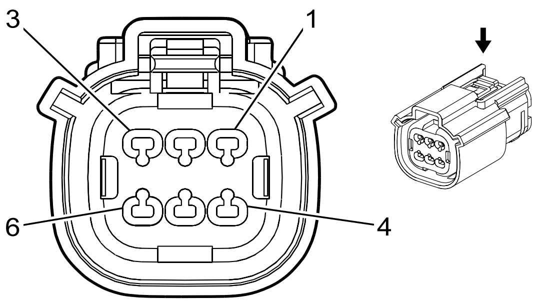
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

TBD1 Pickup Box Endgate Latch (QK1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	1299	Major Endgate Motor Supply Voltage	I	—
2	0.5	YE/BK	7730	Major Endgate Motor Return	I	—

X80C Accessory Power Receptacle - Cargo (KC9/KCA)



1986157

Connector Part Information

Harness Type: Power Inverter Module Jumper
OEM Connector: 15533832
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 MX Series, Sealed (BK)

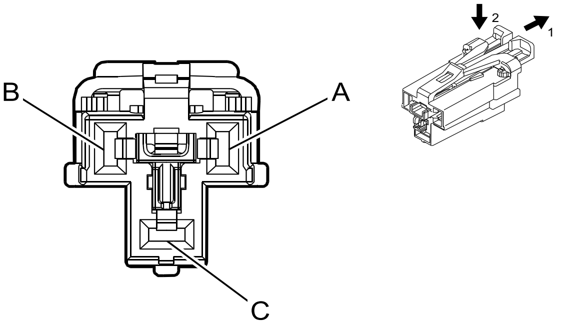
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X80C Accessory Power Receptacle - Cargo (KC9/KCA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	7754	AC Power Outlet Enable	I	—
2	0.75	GN/BN	2266	DC To AC Inverter Control 2	I	—
3	—	—	—	Not Occupied	—	—
4	0.75	BK/WH	2264	120 VAC Phase A 2	I	—
5	1	BK	6650	Ground (66) Propulsion System	I	—
6	0.75	RD/WH	2265	120 VAC Phase B 2	I	—

X80G Accessory Power Receptacle - Instrument Panel



4872413

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33386302
Service Connector: 19369281
Description: 3-Way F 2.8 APEX Series (GY)

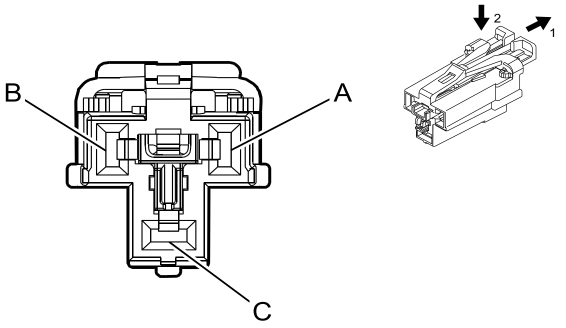
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X80G Accessory Power Receptacle - Instrument Panel

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD/BN	4240	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1050	Ground	I	—

X80L Accessory Power Receptacle - Center Console Rear (A50/D07)



4872413

Connector Part Information

Harness Type: Floor Console
OEM Connector: 33386302
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 2.8 APEX Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

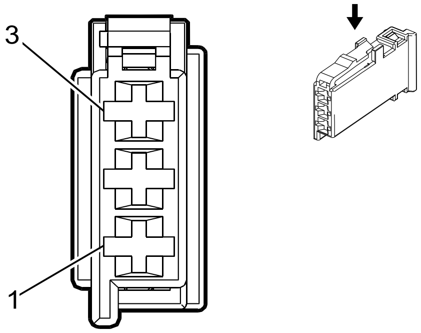
X80L Accessory Power Receptacle - Center Console Rear (A50/D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1.5	RD/WH	1040	Battery Positive Voltage	I	—

X80L Accessory Power Receptacle - Center Console Rear (A50/D07) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
B	—	—	—	Not Occupied	—	—
C	1.5	BK	1250	Ground	I	—

X81 Accessory Power Receptacle - 110V AC X1 (KI4/KI5)



2039656

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10865339
Service Connector: 93186706
Description: 3-Way F 1.6 Micro-Timer Series (BK)

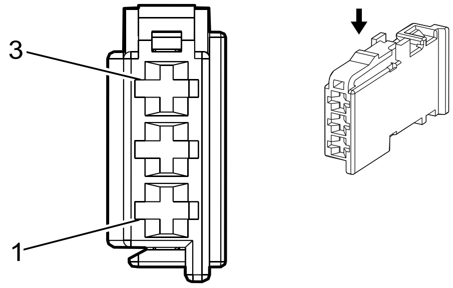
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X81 Accessory Power Receptacle - 110V AC X1 (KI4/KI5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN	7754	AC Power Outlet Enable	I	—
2	—	—	—	Not Occupied	—	—
3	0.75	BK	5683	120 V AC Phase A	I	—

X81 Accessory Power Receptacle - 110V AC X2 (KI4/KI5)



2236412

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13648774
Service Connector: 19367740
Description: 3-Way F 1.6 Timer Series, Sealed (GY)

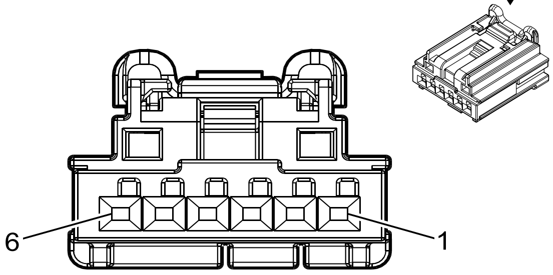
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X81 Accessory Power Receptacle - 110V AC X2 (KI4/KI5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU/BN	6807	DC To AC Inverter Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.75	RD	5684	120 V AC Phase B	I	—

X83 Auxiliary Audio Input X1 ((IOS/IOT)+D07)



3960313

Connector Part Information

Harness Type: Floor Console
OEM Connector: 13920633

Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Generation Y Series (BK)

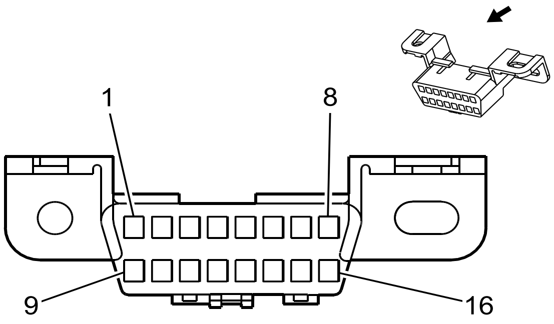
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X83 Auxiliary Audio Input X1 ((IOS/IOT)+D07)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	1340	Battery Positive Voltage	I	—
2	0.35	YE	6817	LED Backlight Dimming Control	I	—
3	0.5	BK	1250	Ground	I	—
4 - 6	—	—	—	Not Occupied	—	—

X84 Data Link Connector



68793

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12110250
Service Connector: 12110250
Description: 16-Way F 150 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575724	J-35616-14 (GN)	J-38125-12A	12129484	Delphi 19	E	C
II	13580059	J-35616-14 (GN)	J-38125-12A	12129484	Delphi 19	E	C

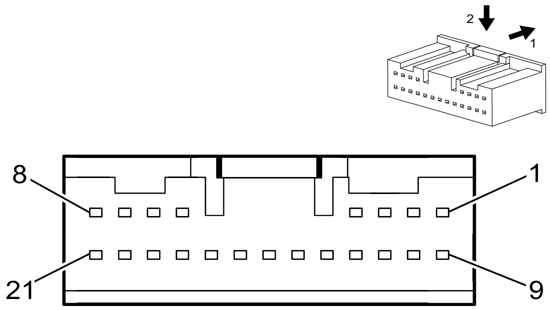
X84 Data Link Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN/WH	2100	Low Speed GMLAN Serial Data #3	I	—
2	—	—	—	Not Occupied	—	—

X84 Data Link Connector (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
3	0.35	BU/WH	2089	High Speed GMLAN Serial Data (+)(13)	I	—
4	0.35	BK	1850	Ground	I	—
5	0.5	BK/WH	1851	Signal Ground	II	—
6	0.35	BU/BK	1978	High Speed GMLAN Serial Data (+)(11)	I	—
7 - 10	—	—	—	Not Occupied	—	—
11	0.35	WH	2090	High Speed GMLAN Serial Data (-)(13)	I	—
12	0.35	BU/BN	1980	High Speed GMLAN Serial Data (+)(12)	I	—
13	0.35	WH	1981	High Speed GMLAN Serial Data (-)(12)	I	—
14	0.35	WH	1979	High Speed GMLAN Serial Data (-)(11)	I	—
15	—	—	—	Not Occupied	—	—
16	0.5	RD/WH	640	Battery Positive Voltage	II	—

X85 Steering Wheel Air Bag Coil X1



3960237

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33291416
Service Connector: 13510218
Description: 21-Way F 0.64 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575742	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P
II	13575864	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03GF-M064	Yazaki 27	P	P
III	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

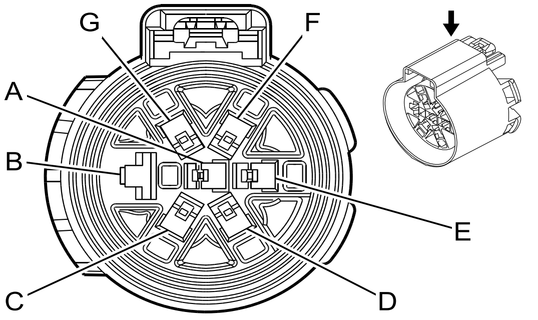
X85 Steering Wheel Air Bag Coil X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/WH	1851	Signal Ground	I	—

X85 Steering Wheel Air Bag Coil X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
2	0.35	GN/WH	3287	Horn Switch Signal	III	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.35	OG/GN	3023	Steering Wheel Module Stage 2 High Control	II	—
6	0.35	WH/OG	3022	Steering Wheel Module Stage 2 Low Control	II	—
7	0.35	BN/OG	3020	Steering Wheel Module Stage 1 Low Control	II	—
8	0.35	OG/VT	3021	Steering Wheel Module Stage 1 High Control	II	—
9	0.35	GN/BK	3894	Local Interconnect Network Serial Data Bus 12	III	—
10	0.35	GN/BU	4119	Local Interconnect Network Serial Data Bus 19	III	—
11	0.35	BN/GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	III	—
12	0.35	WH/RD	1444	12V Reference	III	—
13	—	—	—	Not Occupied	—	—
14	0.35	RD/YE	3040	Battery Positive Voltage	III	—
15	0.35	GY/GN	5737	Adaptive Cruise Control Gap Up/Down Switch Signal	III	—
16	—	—	—	Not Occupied	—	—
17	0.5	YE	6817	LED Backlight Dimming Control	I	—
18 - 19	—	—	—	Not Occupied	—	—
20	0.5	BK	1850	Ground	I	—
21	0.5	VT/WH	1139	Run/Crank Ignition 1 Voltage	I	—

X88 Trailer Connector X1 (U1D)



2056936

Connector Part Information

Harness Type: Chassis
OEM Connector: 13857223
Service Connector: 15306164
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

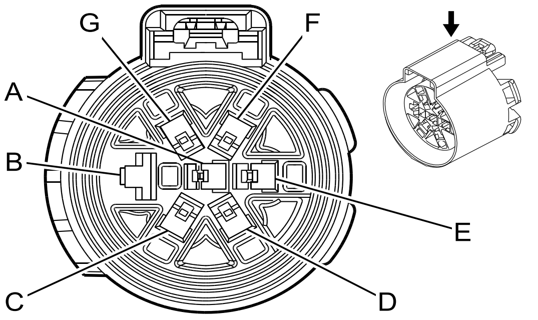
Terminal Part Information (cont'd)

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X88 Trailer Connector X1 (U1D)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75 0.75	GN/WH WH/GN	5189 1624	Trailer Backup Lamp Control Trailer Backup Lamp Control	II II	U1D -U1D
B	5	WH	22	Trailer Ground	I	—
C	2.5	BU	47	Trailer Auxiliary Control	II	—
D	0.75	GN/VT	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	2 4	RD/BN RD/GN	7601 742	Trailer Battery Charge Control Battery Positive Voltage	II II	U1D -U1D
F	0.75 1.5	GY/BN GY/BN	2109 2109	Trailer Park Lamp Control Trailer Park Lamp Control	II II	U1D -U1D
G	0.75 0.75	YE/GY YE/BU	1618 318	Left Rear Trailer Stop/Turn Lamp Control Left Rear Trailer Stop/Turn Lamp Control	II II	U1D -U1D

X88 Trailer Connector X1 (UY2/Z6A)



2056936

Connector Part Information

Harness Type: Trailer Jumper
OEM Connector: 13857223
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

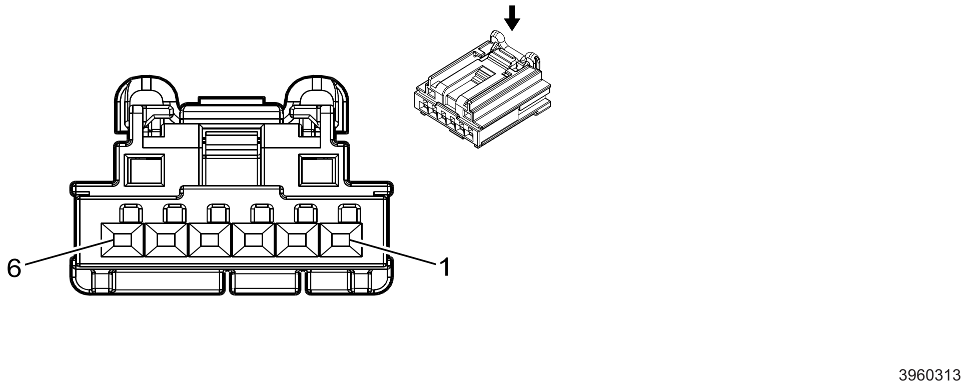
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X88 Trailer Connector X1 (UY2/Z6A)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	GN	1624	Trailer Backup Lamp Control	II	—
B	5	WH	22	Trailer Ground	I	—
C	3	BU	47	Trailer Auxiliary Control	II	—
D	0.8	GN	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	3	RD/BK	742	Battery Positive Voltage	II	—
F	1	BN	2109	Trailer Park Lamp Control	II	—
G	0.8	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

X92 USB Receptacle X1 (D07+(IOS/IOT))



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13920633
Service Connector: 19332786
Description: 6-Way F 0.64 Generation Y Series (BK)

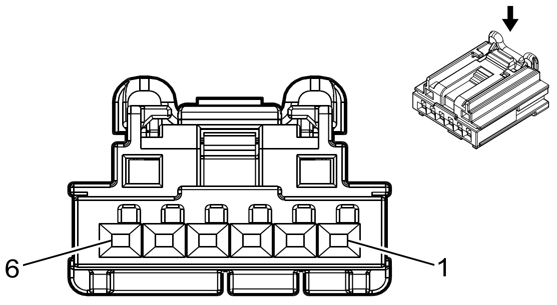
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X92 USB Receptacle X1 (D07+(IOS/IOT))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD/WH	1340	Battery Positive Voltage	I	—
2	0.35	YE	6817	LED Backlight Dimming Control	I	—
3	0.35	BK/WH	1851	Signal Ground	I	—
4 - 6	—	—	—	Not Occupied	—	—

X92C USB Receptacle - Center Console Rear ((IOS/IOT)+(A50/D07))



3960313

Connector Part Information

- Harness Type: Floor Console
- OEM Connector: 13920633
- Service Connector: Service by Harness - See Part Catalog
- Description: 6-Way F 0.64 Generation Y Series (BK)

Terminal Part Information

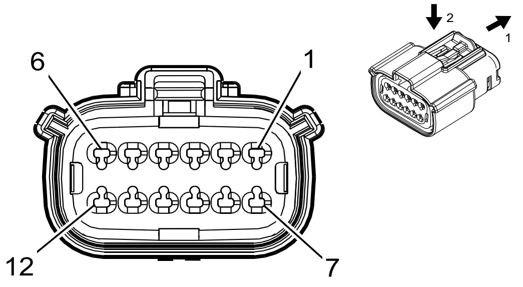
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X92C USB Receptacle - Center Console Rear ((IOS/IOT)+(A50/D07))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/YE	143	Accessory Ignition Voltage	I	—
2	0.35 0.5	YE YE	6817 6817	LED Backlight Dimming Control LED Backlight Dimming Control	I I	IOS/IOT -IOS-IOT
3	0.5	BK	1250	Ground	I	—
4 - 6	—	—	—	Not Occupied	—	—

Inline Harness Connector End Views

X100 Front Bumper Harness to Body Harness (X88+(Extended Cab/Regular Cab) +B26+T3U)



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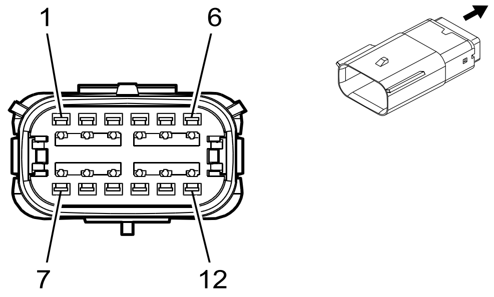


4862194

Connector Part Information

Harness Type: Front Bumper
OEM Connector: 35104104
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 15521147
Service Connector: 19371239
Description: 12-Way M 1.5 OCS Series, Sealed (BK)

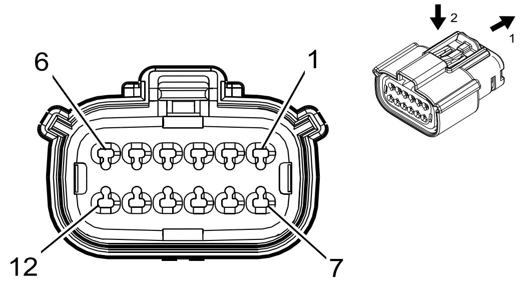
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X100 Front Bumper Harness to Body Harness (X88+(Extended Cab/Regular Cab) +B26+T3U)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	250	I	—	Ground	1	0.5	BK	250	II	—
2 - 3	—	—	—	—	—	Not Occupied	2 - 3	—	—	—	—	—
4	0.5	BK	150	I	—	Ground	4	0.75	BK	150	II	—
5 - 8	—	—	—	—	—	Not Occupied	5 - 8	—	—	—	—	—
9	0.5	BN/VT	2234	I	—	Front Fog Lamp Control	9	0.5	BN/VT	2234	II	—
10 - 12	—	—	—	—	—	Not Occupied	10 - 12	—	—	—	—	—

X100 Front Bumper Harness to Body Harness (X88+(Extended Cab/Regular Cab) +B26-T3U)



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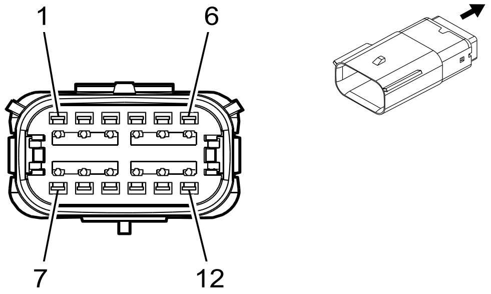


4862194

Connector Part Information

Harness Type: Front Bumper
OEM Connector: 35104106
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 15521147
Service Connector: 19371239
Description: 12-Way M 1.5 OCS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

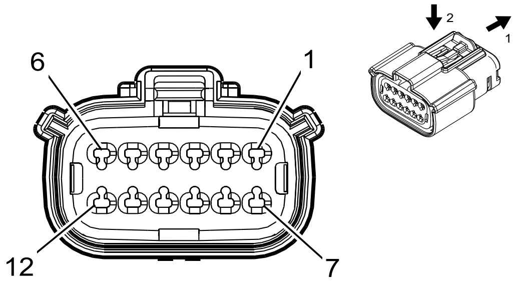
X100 Front Bumper Harness to Body Harness (X88+(Extended Cab/Regular Cab) +B26-T3U)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	VT/GY	5218	I	—	Front Parking Right Mid Sensor	2	0.5	VT/GY	5218	II	—
3	0.5	WH/GY	5217	I	—	Front Parking Right Corner Sensor	3	0.5	WH/GY	5217	II	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	VT/WH	5215	I	—	Front Parking Left Corner Sensor	5	0.5	VT/WH	5215	II	—
6	0.5	BK/BU	5214	I	—	Front Parking Sensor Low Reference	6	0.5	BK/BU	5214	II	—
7	0.5	YE/GY	5216	I	—	Front Parking Left Mid Sensor	7	0.5	YE/GY	5216	II	—

X100 Front Bumper Harness to Body Harness (X88+(Extended Cab/Regular Cab) +B26-T3U) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	YE/VT	5213	I	—	Front Parking Left/Right/Mid Sensor	8	0.5	YE/VT	5213	II	—
9 - 12	—	—	—	—	—	Not Occupied	9 - 12	—	—	—	—	—

X100 Front Bumper Harness to Body Harness (X88+(Extended Cab/Regular Cab) +T3U-B26)



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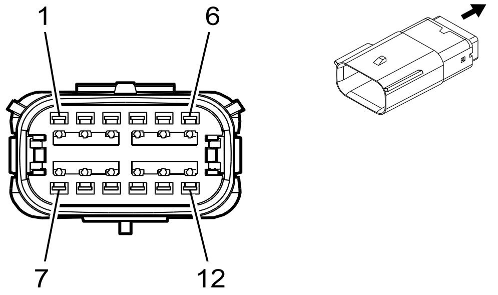


4862194

Connector Part Information

Harness Type: Front Bumper
OEM Connector: 33276998
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 15521147
Service Connector: 19371239
Description: 12-Way M 1.5 OCS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

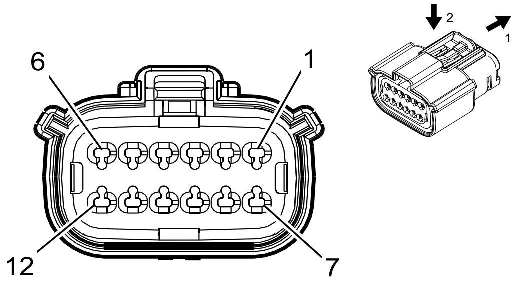
X100 Front Bumper Harness to Body Harness (X88+(Extended Cab/Regular Cab) +T3U-B26)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	250	I	—	Ground	1	0.5	BK	250	II	—
2	0.5	VT/ GY	5218	I	—	Front Parking Right Mid Sensor	2	0.5	VT/ GY	5218	II	—
3	0.5	WH/ GY	5217	I	—	Front Parking Right Corner Sensor	3	0.5	WH/ GY	5217	II	—
4	0.5	BK	150	I	—	Ground	4	0.75	BK	150	II	—
5	0.5	VT/ WH	5215	I	—	Front Parking Left Corner Sensor	5	0.5	VT/ WH	5215	II	—
6	0.5	BK/ BU	5214	I	—	Front Parking Sensor Low Reference	6	0.5	BK/ BU	5214	II	—
7	0.5	YE/ GY	5216	I	—	Front Parking Left Mid Sensor	7	0.5	YE/ GY	5216	II	—

X100 Front Bumper Harness to Body Harness (X88+(Extended Cab/Regular Cab) +T3U-B26) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	YE/ VT	5213	I	—	Front Parking Left/ Right/Mid Sensor	8	0.5	YE/ VT	5213	II	—
9	0.5	BN/ VT	2234	I	—	Front Fog Lamp Control	9	0.5	BN/ VT	2234	II	—
10 - 12	—	—	—	—	—	Not Occupied	10 - 12	—	—	—	—	—

X100 Front Bumper Harness to Body Harness (X88+Crew Cab+B26+T3U)



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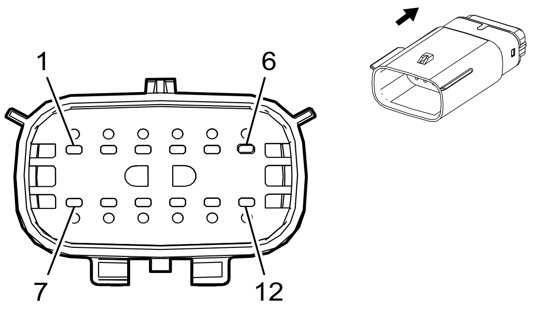


2424959

Connector Part Information

Harness Type: Front Bumper
OEM Connector: 35104104
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13534850
Service Connector: 19369242
Description: 12-Way M 150 MX Series, Sealed (BK)

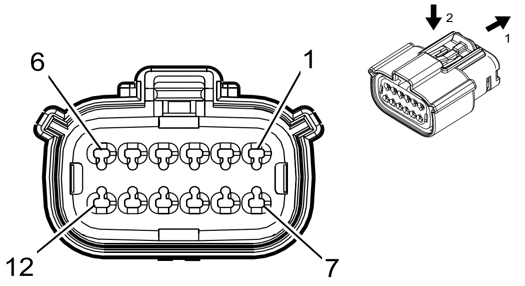
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X100 Front Bumper Harness to Body Harness (X88+Crew Cab+B26+T3U)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	250	I	—	Ground	1	0.5	BK	250	II	—
2 - 3	—	—	—	—	—	Not Occupied	2 - 3	—	—	—	—	—
4	0.5	BK	150	I	—	Ground	4	0.5	BK	150	II	—
5 - 8	—	—	—	—	—	Not Occupied	5 - 8	—	—	—	—	—
9	0.5	BN/VT	2234	I	—	Front Fog Lamp Control	9	0.5	BN/VT	2234	II	—
10 - 12	—	—	—	—	—	Not Occupied	10 - 12	—	—	—	—	—

X100 Front Bumper Harness to Body Harness (X88+Crew Cab+B26-T3U)



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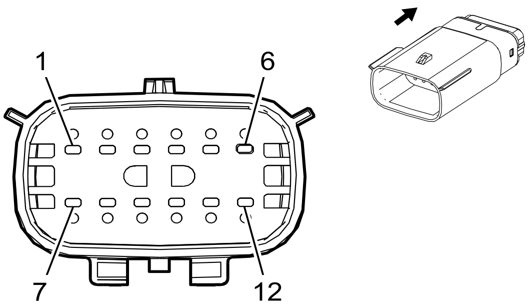


2424959

Connector Part Information

Harness Type: Front Bumper
OEM Connector: 35104106
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13534850
Service Connector: 19369242
Description: 12-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

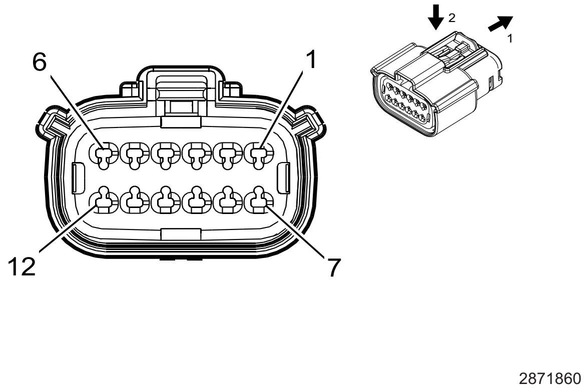
X100 Front Bumper Harness to Body Harness (X88+Crew Cab+B26-T3U)

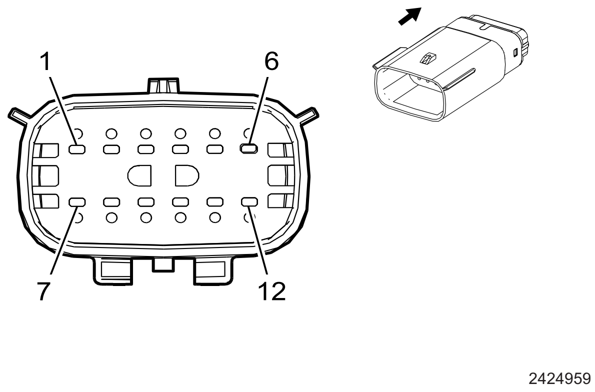
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	VT/GY	5218	I	—	Front Parking Right Mid Sensor	2	0.5	VT/GY	5218	II	—
3	0.5	WH/GY	5217	I	—	Front Parking Right Corner Sensor	3	0.5	WH/GY	5217	II	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	VT/WH	5215	I	—	Front Parking Left Corner Sensor	5	0.5	VT/WH	5215	II	—
6	0.5	BK/BU	5214	I	—	Front Parking Sensor Low Reference	6	0.5	BK/BU	5214	II	—
7	0.5	YE/GY	5216	I	—	Front Parking Left Mid Sensor	7	0.5	YE/GY	5216	II	—

X100 Front Bumper Harness to Body Harness (X88+Crew Cab+B26-T3U) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	YE/VT	5213	I	—	Front Parking Left/Right/Mid Sensor	8	0.5	YE/VT	5213	II	—
9 - 12	—	—	—	—	—	Not Occupied	9 - 12	—	—	—	—	—

X100 Front Bumper Harness to Body Harness (X88+Crew Cab+T3U-B26)





Connector Part Information

Harness Type: Front Bumper
OEM Connector: 33276998
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13534850
Service Connector: 19369242
Description: 12-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

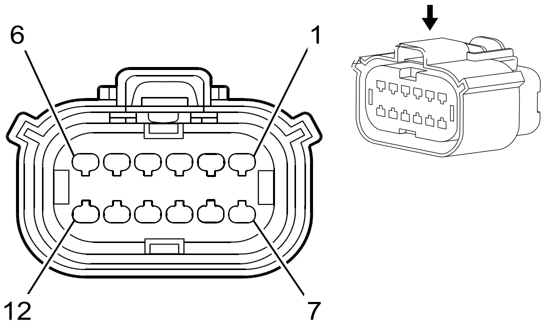
X100 Front Bumper Harness to Body Harness (X88+Crew Cab+T3U-B26)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	250	I	—	Ground	1	0.5	BK	250	II	—
2	0.5	VT/GY	5218	I	—	Front Parking Right Mid Sensor	2	0.5	VT/GY	5218	II	—
3	0.5	WH/GY	5217	I	—	Front Parking Right Corner Sensor	3	0.5	WH/GY	5217	II	—
4	0.5	BK	150	I	—	Ground	4	0.5	BK	150	II	—
5	0.5	VT/WH	5215	I	—	Front Parking Left Corner Sensor	5	0.5	VT/WH	5215	II	—
6	0.5	BK/BU	5214	I	—	Front Parking Sensor Low Reference	6	0.5	BK/BU	5214	II	—
7	0.5	YE/GY	5216	I	—	Front Parking Left Mid Sensor	7	0.5	YE/GY	5216	II	—
8	0.5	YE/VT	5213	I	—	Front Parking Left/Right/Mid Sensor	8	0.5	YE/VT	5213	II	—

X100 Front Bumper Harness to Body Harness (X88+Crew Cab+T3U-B26) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	BN/ VT	2234	I	—	Front Fog Lamp Control	9	0.5	BN/ VT	2234	II	—
10 - 12	—	—	—	—	—	Not Occupied	10 - 12	—	—	—	—	—

X100 Front Bumper Harness to Body Harness (Z88+(Extended Cab/Regular Cab))



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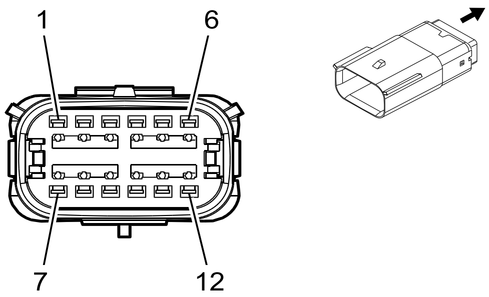


4862194

Connector Part Information

Harness Type: Front Bumper
OEM Connector: 13653762
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 15521147
Service Connector: 19371239
Description: 12-Way M 1.5 OCS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

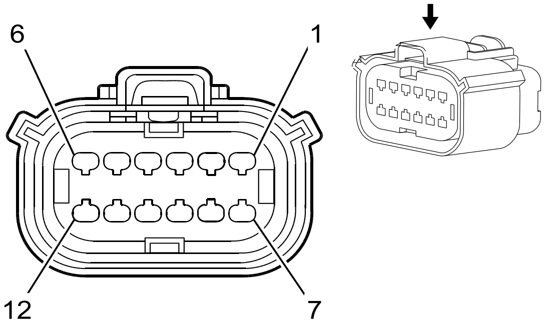
X100 Front Bumper Harness to Body Harness (Z88+(Extended Cab/Regular Cab))

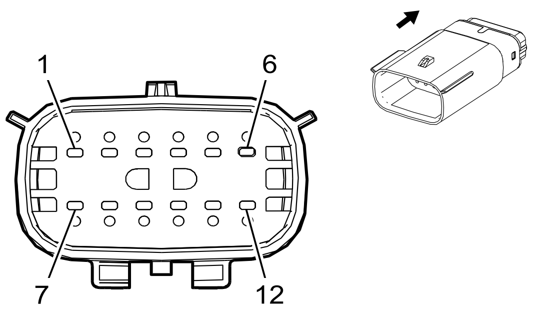
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	250	I	—	Ground	1	0.5	BK	250	II	—
2	0.5	VT/ GY	5218	I	—	Front Parking Right Mid Sensor	2	0.5	VT/ GY	5218	II	—
3	0.5	WH/ GY	5217	I	—	Front Parking Right Corner Sensor	3	0.5	WH/ GY	5217	II	—
4	0.5	BK	150	I	—	Ground	4	0.5 0.75	BK BK	150 150	II II	— —
5	0.5	VT/ WH	5215	I	—	Front Parking Left Corner Sensor	5	0.5	VT/ WH	5215	II	—
6	0.5	BK/ BU	5214	I	—	Front Parking Sensor Low Reference	6	0.5	BK/ BU	5214	II	—
7	0.5	YE/ GY	5216	I	—	Front Parking Left Mid Sensor	7	0.5	YE/ GY	5216	II	—

X100 Front Bumper Harness to Body Harness (Z88+(Extended Cab/Regular Cab)) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	YE/VT	5213	I	—	Front Parking Left/Right/Mid Sensor	8	0.5	YE/VT	5213	II	—
9	0.5	BN/VT	2234	I	—	Front Fog Lamp Control	9	0.5	BN/VT	2234	II	—
10 - 12	—	—	—	—	—	Not Occupied	10 - 12	—	—	—	—	—

X100 Front Bumper Harness to Body Harness (Z88+Crew Cab)





Connector Part Information

Harness Type: Front Bumper
OEM Connector: 13653762
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13534850
Service Connector: 19369242
Description: 12-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

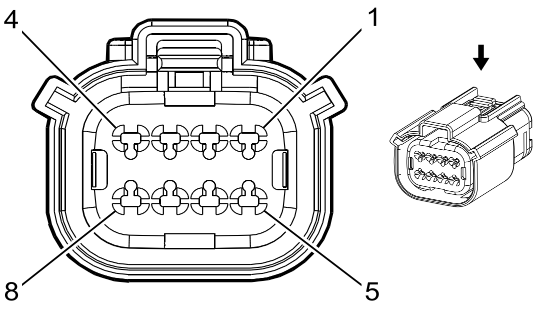
X100 Front Bumper Harness to Body Harness (Z88+Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	250	I	—	Ground	1	0.5	BK	250	II	—
2	0.5	VT/GY	5218	I	—	Front Parking Right Mid Sensor	2	0.5	VT/GY	5218	II	—
3	0.5	WH/GY	5217	I	—	Front Parking Right Corner Sensor	3	0.5	WH/GY	5217	II	—
4	0.5	BK	150	I	—	Ground	4	0.5	BK	150	II	—
5	0.5	VT/WH	5215	I	—	Front Parking Left Corner Sensor	5	0.5	VT/WH	5215	II	—
6	0.5	BK/BU	5214	I	—	Front Parking Sensor Low Reference	6	0.5	BK/BU	5214	II	—
7	0.5	YE/GY	5216	I	—	Front Parking Left Mid Sensor	7	0.5	YE/GY	5216	II	—
8	0.5	YE/VT	5213	I	—	Front Parking Left/Right/Mid Sensor	8	0.5	YE/VT	5213	II	—

X100 Front Bumper Harness to Body Harness (Z88+Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	BN/ VT	2234	I	—	Front Fog Lamp Control	9	0.5	BN/ VT	2234	II	—
10 - 12	—	—	—	—	—	Not Occupied	10 - 12	—	—	—	—	—

X110 Body Harness to Headlamp - Left Harness (Crew Cab)



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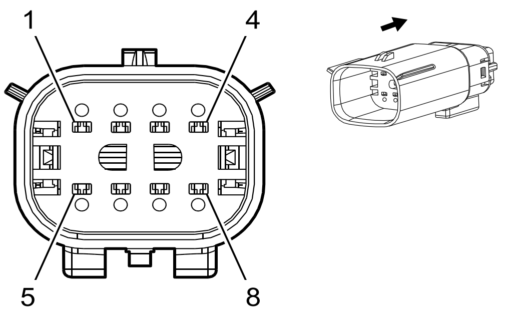


2667653

Connector Part Information

Harness Type: Body
OEM Connector: 13654393
Service Connector: 19366859
Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Headlamp - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

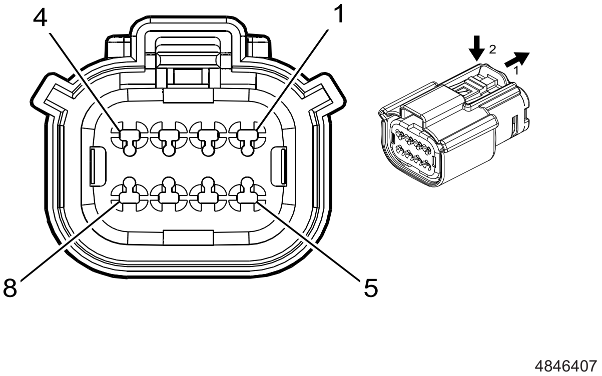
Terminal Part Information

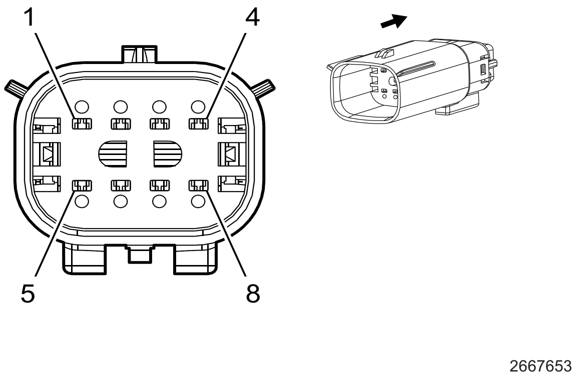
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X110 Body Harness to Headlamp - Left Harness (Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	150	I	—	Ground	1	0.75	BK	150	II	—
2	0.75	YE	2227	I	—	Left Headlamp Control	2	0.75	YE	2227	II	—
3	0.75	YE	712	I	—	Left Headlamp Low Beam Control	3	0.75	YE	712	II	—
4	0.75	WH	711	I	—	Left Headlamp High Beam Control	4	0.75	WH	711	II	—
5	0.5	VT/ GY	709	I	—	Left Park Lamp Control	5	0.5	VT/ GY	709	II	—
6	0.35	BU/ VT	3204	I	—	Left Headlamp Bulb Outage Signal	6	0.35	BU/ VT	3204	II	—
7	0.5	BU/ WH	1314	I	—	Left Front Turn Signal Lamp Control	7	0.5	BU/ WH	1314	II	—
8	0.35	GY/ BU	7538	I	—	Left Front DRL Control	8	0.35	GY/ BU	7538	II	—

X110 Body Harness to Headlamp - Left Harness (Extended Cab)





Connector Part Information

Harness Type: Body
OEM Connector: 35037827
Service Connector: 19366859
Description: 8-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Headlamp - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

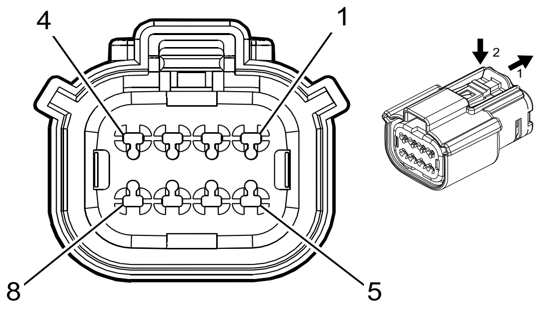
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X110 Body Harness to Headlamp - Left Harness (Extended Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	150	I	—	Ground	1	0.75	BK	150	II	—
2	0.75	YE	2227	I	—	Left Headlamp Control	2	0.75	YE	2227	II	—
3	0.75	YE	712	I	—	Left Headlamp Low Beam Control	3	0.75	YE	712	II	—
4	0.75	WH	711	I	—	Left Headlamp High Beam Control	4	0.75	WH	711	II	—
5	0.5	VT/GY	709	I	—	Left Park Lamp Control	5	0.5	VT/GY	709	II	—
6	0.35	BU/VT	3204	I	—	Left Headlamp Bulb Outage Signal	6	0.35	BU/VT	3204	II	—
7	0.5	BU/WH	1314	I	—	Left Front Turn Signal Lamp Control	7	0.5	BU/WH	1314	II	—
8	0.35	GY/BU	7538	I	—	Left Front DRL Control	8	0.35	GY/BU	7538	II	—

X110 Body Harness to Headlamp - Left Harness (Regular Cab)



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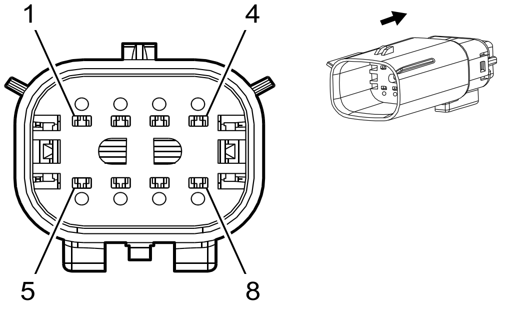


2667653

Connector Part Information

Harness Type: Body
OEM Connector: 35037827
Service Connector: 19366859
Description: 8-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Headlamp - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

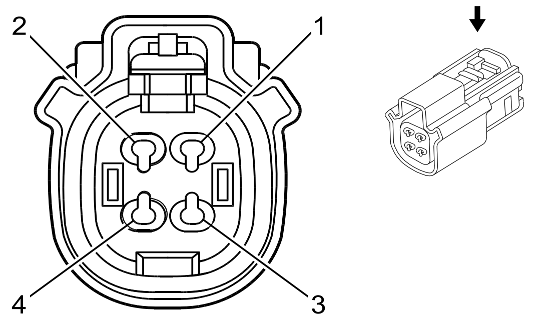
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X110 Body Harness to Headlamp - Left Harness (Regular Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	150	I	—	Ground	1	0.75	BK	150	II	—
2	0.75	YE	2227	I	—	Left Headlamp Control	2	0.75	YE	2227	II	—
3	0.75	YE	712	I	—	Left Headlamp Low Beam Control	3	0.75	YE	712	II	—
4	0.75	WH	711	I	—	Left Headlamp High Beam Control	4	0.75	WH	711	II	—
5	0.5	VT/ GY	709	I	—	Left Park Lamp Control	5	0.5	VT/ GY	709	II	—
6	0.35	BU/ VT	3204	I	—	Left Headlamp Bulb Outage Signal	6	0.35	BU/ VT	3204	II	—
7	0.5	BU/ WH	1314	I	—	Left Front Turn Signal Lamp Control	7	0.5	BU/ WH	1314	II	—
8	0.35	GY/ BU	7538	I	—	Left Front DRL Control	8	0.35	GY/ BU	7538	II	—

X111 Axle Harness to Engine Harness (NP0/NQH)



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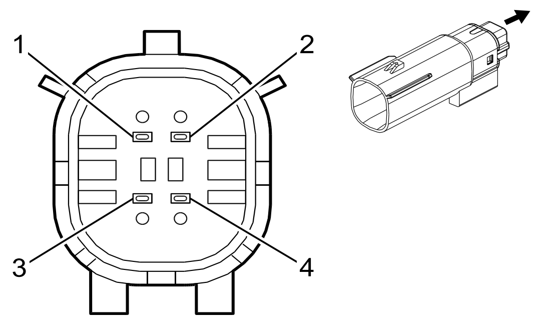


2368875

Connector Part Information

Harness Type: Axle
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F

Connector Part Information

Harness Type: Engine
OEM Connector: 33344515
Service Connector: 19330396
Description: 4-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

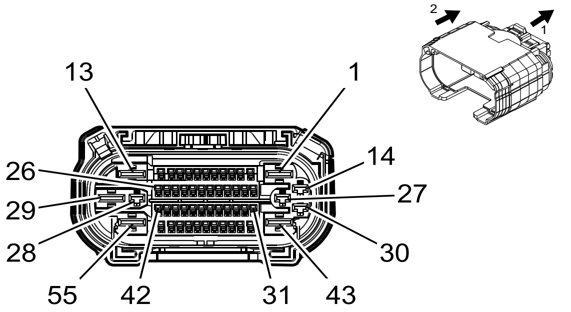
X111 Axle Harness to Engine Harness (NP0/NQH)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1 0.5	BK BK	4450 4450	I I	NP0 NQH	Ground Ground Ground	1	0.5 1 0.5	BK BK BK	4450 4450 4450	II II II	— NP0 NQH
1	1 0.5	BK BK	4450 4450	I I	NP0 NQH	Ground Ground Ground	1	0.5 1 0.5	BK BK BK	4450 4450 4450	II II II	— NP0 NQH
2	0.5	YE/ WH	1695	I	—	Four Wheel Drive Wheel Lock Indicator Control Four Wheel Drive Wheel Lock Indicator Control	2	0.5	YE/ WH	1695	II	—
2	0.5	YE/ WH	1695	I	—	Four Wheel Drive Wheel Lock Indicator Control Four Wheel Drive Wheel Lock Indicator Control	2	0.5	YE/ WH	1695	II	—

X111 Axle Harness to Engine Harness (NP0/NQH) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5	VT/ BK	2139	I	—	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	3	0.5	VT/ BK	2139	II	—
3	0.5	VT/ BK	2139	I	—	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	3	0.5	VT/ BK	2139	II	—
4	0.5	GY/ BK	1570	I	—	Front Axle Actuator Control Front Axle Actuator Control	4	0.5	GY/ BK	1570	II	—
4	0.5	GY/ BK	1570	I	—	Front Axle Actuator Control Front Axle Actuator Control	4	0.5	GY/ BK	1570	II	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+(L84/L87))



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4992329

Connector Part Information

Harness Type: Engine

OEM Connector: 35179598

Service Connector: 19371184

Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Connector Part Information

Harness Type: Body

OEM Connector: 35205185

Service Connector: 84727363

Description: 55-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+(L84/L87))

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	0.5	BK/ BU	1271	I	—	Accelerator Pedal Position Low Reference 1	3	0.35	BK/ BU	1271	II	—
4	0.5	BN/ WH	419	I	—	Check Engine Indicator Control	4	0.35	BN/ WH	419	II	—
5	0.5	GN/ WH	1162	I	—	Accelerator Pedal Position Signal 2	5	0.35	GN/ WH	1162	II	—
6 - 14	—	—	—	—	—	Not Occupied	6 - 14	—	—	—	—	—
15	0.5	YE	4063	I	—	Hood Status A Signal	15	0.35	YE	4063	II	—
16	0.5	VT/ GN	439	I	—	Run/Crank Ignition 1 Voltage	16	0.5	VT/ GN	439	II	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+(L84/L87)) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
17	0.5	WH/ BU	5986	I	—	Serial Data Communication Enable	17	0.35	WH/ BU	5986	II	—
18	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	18	0.35	BK/ GY	2204	II	—
19	0.5	WH/ BN	2203	I	—	Enhanced Driver Mode 2 Switch Signal	19	0.35	WH/ BN	2203	II	—
20	0.5	BU/ RD	460	I	—	Engine Control Sensors 5 Volt Reference (1)	20	0.35	GY	4109	II	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	0.5	VT/ YE	5985	I	—	Accessory Wakeup Serial Data	22	0.35	VT/ YE	5985	II	—
23	0.5	GN/ VT	4621	I	—	Local Interconnect Network Serial Data Bus 21	23	0.5	GN/ VT	4621	II	—
24	0.5	BU/ BK	7493	I	—	High Speed GMLAN Serial Data (+)3	24	0.5	BU/ BK	7493	II	—
25	0.5	WH	7494	I	—	High Speed GMLAN Serial Data (-)3	25	0.5	WH	7494	II	—
26	0.5	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	26	0.35	BU/ GY	636	II	—
27 - 30	—	—	—	—	—	Not Occupied	27 - 30	—	—	—	—	—
31	0.5	WH/ BU	6311	I	—	Cruise/ETC/ TCC Brake Signal	31	0.35	WH/ BU	6311	II	—
32	0.5	VT/ BU	6091	I	—	Crankshaft Position Sensor Replicated Signal	32	0.35	VT/ BU	6091	II	—
33	0.5	BN	1560	I	—	Neutral Indicator Control	33	0.35	BN	1560	II	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—

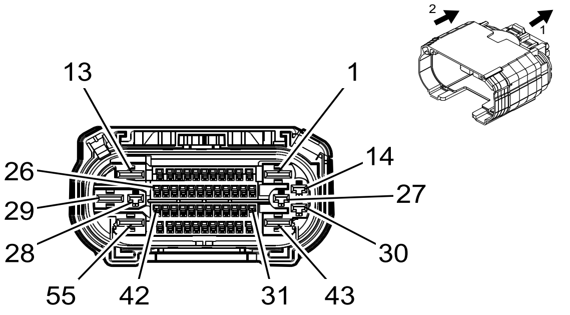
X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+(L84/L87)) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
35	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	35	0.35	BK/ YE	5382	II	—
36	0.5	WH/ GN	5380	I	—	Brake Position Sensor Signal	36	0.35	WH/ GN	5380	II	—
37	0.5	WH/ RD	480	I	—	Engine Control Sensors 5 Volt Reference (2)	37	0.35	WH/ RD	5381	II	—
38	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	38	0.5	BU	2500	II	—
39	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	39	0.5	WH	2501	II	—
40	0.5	BK/ VT	1272	I	—	Accelerator Pedal Position Low Reference 2	40	0.35	BK/ VT	1272	II	—
41	—	—	—	—	—	Not Occupied	41	—	—	—	—	—
42	0.5	YE/ BK	625	I	—	Starter Enable Relay Control	42	0.5	YE/ BK	625	II	—
43	4	BK/ WH	451	I	—	Signal Ground	43	4	BK/ WH	2251	II	—
44	1.5	RD/ GN	1840	I	—	Battery Positive Voltage	44	1	RD/ GN	1840	II	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.5	BK/ GN	580	I	—	Engine Control Sensors Low Reference (2)	46	0.35	BK/ GN	580	II	—
47	0.5	BU/ BN	7573	I	—	Electric Variable Displacement Supply	47	0.35	BU/ BN	7573	II	—
48	—	—	—	—	—	Not Occupied	48	—	—	—	—	—
49	0.5	YE/ WH	1161	I	—	Accelerator Pedal Position Signal 1	49	0.35	YE/ WH	1161	II	—
50	0.5	WH/ RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	50	0.35	WH/ RD	1164	II	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+(L84/L87)) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
51	0.5	BN/ RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	51	0.35	BN/ RD	1274	II	—
52	—	—	—	—	—	Not Occupied	52	—	—	—	—	—
53	0.5	BU/ YE	7574	I	—	Electric Variable Displacement Control	53	0.35	BU/ YE	7574	II	—
54 - 55	—	—	—	—	—	Not Occupied	54 - 55	—	—	—	—	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+L3B)



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4992329

Connector Part Information

Harness Type: Engine

OEM Connector: 35179575

Service Connector: 19371184

Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Connector Part Information

Harness Type: Body

OEM Connector: 35205185

Service Connector: 84727363

Description: 55-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+L3B)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	0.5	BK/ BU	1271	I	—	Accelerator Pedal Position Low Reference 1	3	0.35	BK/ BU	1271	II	—
4	0.5	BN/ WH	419	I	—	Check Engine Indicator Control	4	0.35	BN/ WH	419	II	—
5	0.5	GN/ WH	1162	I	—	Accelerator Pedal Position Signal 2	5	0.35	GN/ WH	1162	II	—
6 - 14	—	—	—	—	—	Not Occupied	6 - 14	—	—	—	—	—
15	0.5	YE	4063	I	—	Hood Status A Signal	15	0.35	YE	4063	II	—
16	0.5	VT/ GN	439	I	—	Run/Crank Ignition 1 Voltage	16	0.5	VT/ GN	439	II	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+L3B) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
17	0.5	WH/ BU	5986	I	—	Serial Data Communication Enable	17	0.35	WH/ BU	5986	II	—
18	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	18	0.35	BK/ GY	2204	II	—
19	0.5	WH/ VT	4108	I	—	Driver Mode Switch Signal	19	0.35	WH/ BN	2203	II	—
20	0.5	BU/ RD	460	I	—	Engine Control Sensors 5 Volt Reference (1)	20	0.35	GY	4109	II	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	0.5	VT/ YE	5985	I	—	Accessory Wakeup Serial Data	22	0.35	VT/ YE	5985	II	—
23	0.5	GN/ VT	4621	I	—	Local Interconnect Network Serial Data Bus 21	23	0.5	GN/ VT	4621	II	—
24	0.5	BU/ BK	7493	I	—	High Speed GMLAN Serial Data (+)3	24	0.5	BU/ BK	7493	II	—
25	0.5	WH	7494	I	—	High Speed GMLAN Serial Data (-)3	25	0.5	WH	7494	II	—
26	0.5	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	26	0.35	BU/ GY	636	II	—
27 - 30	—	—	—	—	—	Not Occupied	27 - 30	—	—	—	—	—
31	0.5	WH/ BU	6311	I	—	Cruise/ETC/ TCC Brake Signal	31	0.35	WH/ BU	6311	II	—
32	0.5	VT/ BU	6091	I	—	Crankshaft Position Sensor Replicated Signal	32	0.35	VT/ BU	6091	II	—
33	0.5	BN	1560	I	—	Neutral Indicator Control	33	0.35	BN	1560	II	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	35	0.35	BK/ YE	5382	II	—

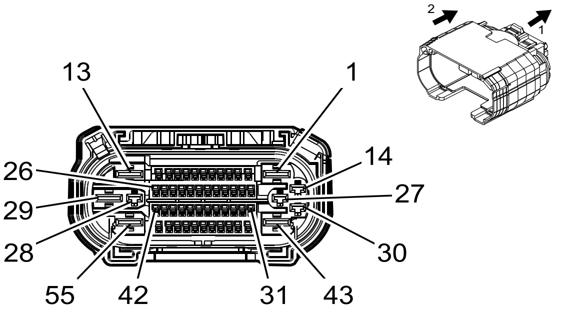
X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+L3B) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
36	0.5	WH/GN	5380	I	—	Brake Position Sensor Signal	36	0.35	WH/GN	5380	II	—
37	0.5	WH/RD	480	I	—	Engine Control Sensors 5 Volt Reference (2)	37	0.35	WH/RD	5381	II	—
38	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	38	0.5	BU	2500	II	—
39	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	39	0.5	WH	2501	II	—
40	0.5	BK/VT	1272	I	—	Accelerator Pedal Position Low Reference 2	40	0.35	BK/VT	1272	II	—
41	—	—	—	—	—	Not Occupied	41	—	—	—	—	—
42	0.5	YE/BK	625	I	—	Starter Enable Relay Control	42	0.5	YE/BK	625	II	—
43	4	BK/WH	451	I	—	Signal Ground	43	4	BK/WH	2251	II	—
44	1.5	RD/GN	1840	I	—	Battery Positive Voltage	44	1	RD/GN	1840	II	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.5	BK/GN	580	I	—	Engine Control Sensors Low Reference (2)	46	0.35	BK/GN	580	II	—
47	0.5	BU/BN	7573	I	—	Electric Variable Displacement Supply	47	0.35	BU/BN	7573	II	—
48	0.5	RD/GN	40	I	—	Battery Positive Voltage	48	0.35	RD/GN	40	II	—
49	0.5	YE/WH	1161	I	—	Accelerator Pedal Position Signal 1	49	0.35	YE/WH	1161	II	—
50	0.5	WH/RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	50	0.35	WH/RD	1164	II	—
51	0.5	BN/RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	51	0.35	BN/RD	1274	II	—
52	—	—	—	—	—	Not Occupied	52	—	—	—	—	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+L3B) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
53	0.5	BU/YE	7574	I	—	Electric Variable Displacement Control	53	0.35	BU/YE	7574	II	—
54 - 55	—	—	—	—	—	Not Occupied	54 - 55	—	—	—	—	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+L82)



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4992329

Connector Part Information

Harness Type: Engine
OEM Connector: 35179599
Service Connector: 19371184
Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 35205185
Service Connector: 84727363
Description: 55-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+L82)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	0.5	BK/ BU	1271	I	—	Accelerator Pedal Position Low Reference 1	3	0.35	BK/ BU	1271	II	—
4	0.5	BN/ WH	419	I	—	Check Engine Indicator Control	4	0.35	BN/ WH	419	II	—
5	0.5	GN/ WH	1162	I	—	Accelerator Pedal Position Signal 2	5	0.35	GN/ WH	1162	II	—
6 - 14	—	—	—	—	—	Not Occupied	6 - 14	—	—	—	—	—
15	0.5	YE	4063	I	—	Hood Status A Signal	15	0.35	YE	4063	II	—
16	0.5	VT/ GN	439	I	—	Run/Crank Ignition 1 Voltage	16	0.5	VT/ GN	439	II	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+L82) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
17	0.5	WH/ BU	5986	I	—	Serial Data Communication Enable	17	0.35	WH/ BU	5986	II	—
18	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	18	0.35	BK/ GY	2204	II	—
19	0.5	WH/ BN	2203	I	—	Enhanced Driver Mode 2 Switch Signal	19	0.35	WH/ BN	2203	II	—
20	0.5	BU/ RD	460	I	—	Engine Control Sensors 5 Volt Reference (1)	20	0.35	GY	4109	II	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	0.5	VT/ YE	5985	I	—	Accessory Wakeup Serial Data	22	0.35	VT/ YE	5985	II	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	BU/ BK	7493	I	—	High Speed GMLAN Serial Data (+)3	24	0.5	BU/ BK	7493	II	—
25	0.5	WH	7494	I	—	High Speed GMLAN Serial Data (-)3	25	0.5	WH	7494	II	—
26	0.5	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	26	0.35	BU/ GY	636	II	—
27 - 30	—	—	—	—	—	Not Occupied	27 - 30	—	—	—	—	—
31	0.5	WH/ BU	6311	I	—	Cruise/ETC/ TCC Brake Signal	31	0.35	WH/ BU	6311	II	—
32	0.5	VT/ BU	6091	I	—	Crankshaft Position Sensor Replicated Signal	32	0.35	VT/ BU	6091	II	—
33	0.5	BN	1560	I	—	Neutral Indicator Control	33	0.35	BN	1560	II	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	35	0.35	BK/ YE	5382	II	—

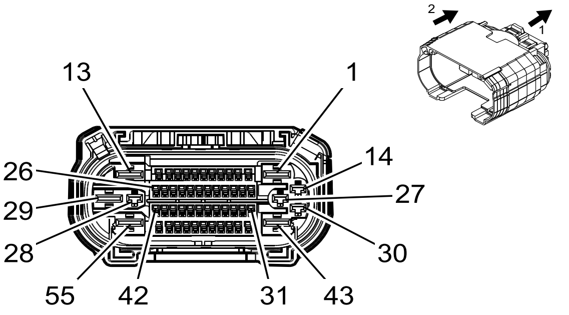
X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+L82) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
36	0.5	WH/GN	5380	I	—	Brake Position Sensor Signal	36	0.35	WH/GN	5380	II	—
37	0.5	WH/RD	480	I	—	Engine Control Sensors 5 Volt Reference (2)	37	0.35	WH/RD	5381	II	—
38	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	38	0.5	BU	2500	II	—
39	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	39	0.5	WH	2501	II	—
40	0.5	BK/VT	1272	I	—	Accelerator Pedal Position Low Reference 2	40	0.35	BK/VT	1272	II	—
41 - 42	—	—	—	—	—	Not Occupied	41 - 42	—	—	—	—	—
43	4	BK/WH	451	I	—	Signal Ground	43	4	BK/WH	2251	II	—
44	1.5	RD/GN	1840	I	—	Battery Positive Voltage	44	1	RD/GN	1840	II	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.5	BK/GN	580	I	—	Engine Control Sensors Low Reference (2)	46	0.35	BK/GN	580	II	—
47	0.5	BU/BN	7573	I	—	Electric Variable Displacement Supply	47	0.35	BU/BN	7573	II	—
48	—	—	—	—	—	Not Occupied	48	—	—	—	—	—
49	0.5	YE/WH	1161	I	—	Accelerator Pedal Position Signal 1	49	0.35	YE/WH	1161	II	—
50	0.5	WH/RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	50	0.35	WH/RD	1164	II	—
51	0.5	BN/RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	51	0.35	BN/RD	1274	II	—
52	—	—	—	—	—	Not Occupied	52	—	—	—	—	—
53	0.5	BU/YE	7574	I	—	Electric Variable Displacement Control	53	0.35	BU/YE	7574	II	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+L82) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
54 - 55	—	—	—	—	—	Not Occupied	54 - 55	—	—	—	—	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+LM2)



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4992329

Connector Part Information

Harness Type: Engine
OEM Connector: 35016653
Service Connector: 19371184
Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 35205185
Service Connector: 84727363
Description: 55-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+LM2)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	1	BK	9003	I	—	—	2	—	—	—	—	—
3	0.5	BK/ BU	1271	I	—	Accelerator Pedal Position Low Reference 1	3	0.35	BK/ BU	1271	II	—
4	0.5	BN/ WH	419	I	—	Check Engine Indicator Control	4	0.35	BN/ WH	419	II	—
5	0.5	GN/ WH	1162	I	—	Accelerator Pedal Position Signal 2	5	0.35	GN/ WH	1162	II	—
6	0.5	GN/ BN	507	I	—	Wait To Start Indicator Control	6	0.35	GN/ BN	507	II	—
7 - 11	—	—	—	—	—	Not Occupied	7 - 11	—	—	—	—	—
12	1	BK	9003	I	—	—	12	—	—	—	—	—
13 - 14	—	—	—	—	—	Not Occupied	13 - 14	—	—	—	—	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+LM2) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
15	0.5	YE	4063	I	—	Hood Status A Signal	15	0.35	YE	4063	II	—
16	0.5	VT/GN	439	I	—	Run/Crank Ignition 1 Voltage	16	0.5	VT/GN	439	II	—
17	0.5	WH/BU	5986	I	—	Serial Data Communication Enable	17	0.35	WH/BU	5986	II	—
18	0.5	BK/GY	626	I	—	Engine Control Sensors Low Reference (3)	18	0.35	BK/GY	2204	II	—
19	0.5	WH/BN	2203	I	—	Enhanced Driver Mode 2 Switch Signal	19	0.35	WH/BN	2203	II	—
20	0.5	BU/RD	460	I	—	Engine Control Sensors 5 Volt Reference (1)	20	0.35	GY	4109	II	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	0.5	VT/YE	5985	I	—	Accessory Wakeup Serial Data	22	0.35	VT/YE	5985	II	—
23	0.5	GN/VT	4621	I	—	Local Interconnect Network Serial Data Bus 21	23	0.5	GN/VT	4621	II	—
24	0.5	BU/BK	7493	I	—	High Speed GMLAN Serial Data (+)3	24	0.5	BU/BK	7493	II	—
25	0.5	WH	7494	I	—	High Speed GMLAN Serial Data (-)3	25	0.5	WH	7494	II	—
26	0.5	BU/GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	26	0.35	BU/GY	636	II	—
27 - 30	—	—	—	—	—	Not Occupied	27 - 30	—	—	—	—	—
31	0.5	WH/BU	6311	I	—	Cruise/ETC/TCC Brake Signal	31	0.35	WH/BU	6311	II	—
32	0.5	VT/BU	6091	I	—	Crankshaft Position Sensor Replicated Signal	32	0.35	VT/BU	6091	II	—
33	0.5	BN	1560	I	—	Neutral Indicator Control	33	0.35	BN	1560	II	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+LM2) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	35	0.35	BK/ YE	5382	II	—
36	0.5	WH/ GN	5380	I	—	Brake Position Sensor Signal	36	0.35	WH/ GN	5380	II	—
37	0.5	WH/ RD	480	I	—	Engine Control Sensors 5 Volt Reference (2)	37	0.35	WH/ RD	5381	II	—
38	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	38	0.5	BU	2500	II	—
39	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	39	0.5	WH	2501	II	—
40	0.5	BK/ VT	1272	I	—	Accelerator Pedal Position Low Reference 2	40	0.35	BK/ VT	1272	II	—
41	—	—	—	—	—	Not Occupied	41	—	—	—	—	—
42	0.5	YE/ BK	625	I	—	Starter Enable Relay Control	42	0.5	YE/ BK	625	II	—
43	6	BK/ WH	451	I	—	Signal Ground	43	4	BK/ WH	2251	II	—
44	1.5	RD/ GN	1840	I	—	Battery Positive Voltage	44	1	RD/ GN	1840	II	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.5	BK/ GN	580	I	—	Engine Control Sensors Low Reference (2)	46	0.35	BK/ GN	580	II	—
47	0.5	BU/ BN	7573	I	—	Electric Variable Displacement Supply	47	0.35	BU/ BN	7573	II	—
48	0.5	RD/ GN	40	I	—	Battery Positive Voltage	48	0.35	RD/ GN	40	II	—
49	0.5	YE/ WH	1161	I	—	Accelerator Pedal Position Signal 1	49	0.35	YE/ WH	1161	II	—
50	0.5	WH/ RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	50	0.35	WH/ RD	1164	II	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+LM2) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
51	0.5	BN/ RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	51	0.35	BN/ RD	1274	II	—
52	—	—	—	—	—	Not Occupied	52	—	—	—	—	—
53	0.5	BU/ YE	7574	I	—	Electric Variable Displacement Control	53	0.35	BU/ YE	7574	II	—
54 - 55	—	—	—	—	—	Not Occupied	54 - 55	—	—	—	—	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+LV3)

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Connector Part Information

Harness Type: Engine
OEM Connector: 35179597
Service Connector: 19371184
Description: 55-Way F

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Connector Part Information

Harness Type: Body
OEM Connector: 35205185
Service Connector: 84727363
Description: 55-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+LV3)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5	BK/BU	1271	I	—	Accelerator Pedal Position Low Reference 1	3	0.35	BK/BU	1271	II	—
4	0.5	BN/WH	419	I	—	Check Engine Indicator Control	4	0.35	BN/WH	419	II	—
5	0.5	GN/WH	1162	I	—	Accelerator Pedal Position Signal 2	5	0.35	GN/WH	1162	II	—
15	0.5	YE	4063	I	—	Hood Status A Signal	15	0.35	YE	4063	II	—
16	0.5	VT/GN	439	I	—	Run/Crank Ignition 1 Voltage	16	0.5	VT/GN	439	II	—
17	0.5	WH/BU	5986	I	—	Serial Data Communi cation Enable	17	0.35	WH/BU	5986	II	—
18	0.5	BK/GY	626	I	—	Engine Control Sensors Low Reference (3)	18	0.35	BK/GY	2204	II	—
19	0.5	WH/BN	2203	I	—	Enhanced Driver Mode 2 Switch Signal	19	0.35	WH/BN	2203	II	—
20	0.5	BU/RD	460	I	—	Engine Control Sensors 5 Volt Reference (1)	20	0.35	GY	4109	II	—
22	0.5	VT/YE	5985	I	—	Accessory Wakeup Serial Data	22	0.35	VT/YE	5985	II	—

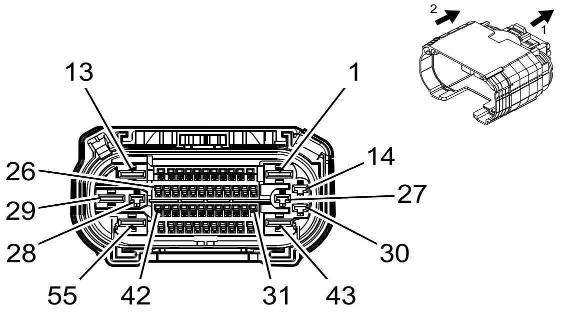
X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+LV3) (cont'd)

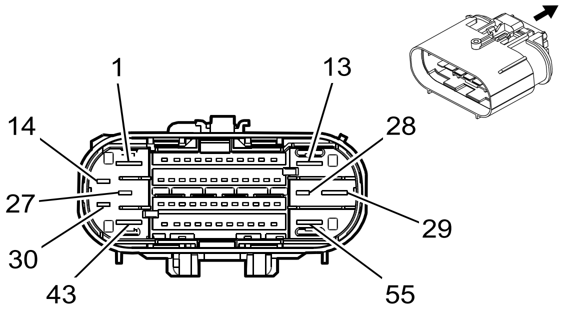
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
24	0.5	BU/ BK	7493	I	—	High Speed GMLAN Serial Data (+)3	24	0.5	BU/ BK	7493	II	—
25	0.5	WH	7494	I	—	High Speed GMLAN Serial Data (-)3	25	0.5	WH	7494	II	—
26	0.5	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	26	0.35	BU/ GY	636	II	—
31	0.5	WH/ BU	6311	I	—	Cruise/ETC/ TCC Brake Signal	31	0.35	WH/ BU	6311	II	—
32	0.5	VT/ BU	6091	I	—	Crankshaft Position Sensor Replicated Signal	32	0.35	VT/ BU	6091	II	—
33	0.5	BN	1560	I	—	Neutral Indicator Control	33	0.35	BN	1560	II	—
35	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	35	0.35	BK/ YE	5382	II	—
36	0.5	WH/ GN	5380	I	—	Brake Position Sensor Signal	36	0.35	WH/ GN	5380	II	—
37	0.5	WH/ RD	480	I	—	Engine Control Sensors 5 Volt Reference (2)	37	0.35	WH/ RD	5381	II	—
38	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	38	0.5	BU	2500	II	—
39	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	39	0.5	WH	2501	II	—
40	0.5	BK/ VT	1272	I	—	Accelerator Pedal Position Low Reference 2	40	0.35	BK/ VT	1272	II	—
43	4	BK/ WH	451	I	—	Signal Ground	43	4	BK/ WH	2251	II	—
44	1.5	RD/ GN	1840	I	—	Battery Positive Voltage	44	1	RD/ GN	1840	II	—
46	0.5	BK/ GN	580	I	—	Engine Control Sensors Low Reference (2)	46	0.35	BK/ GN	580	II	—

X115 Engine Harness to Body Harness ((Extended Cab/Regular Cab)+LV3) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
47	0.5	BU/ BN	7573	I	—	Electric Variable Displacement Supply	47	0.35	BU/ BN	7573	II	—
49	0.5	YE/ WH	1161	I	—	Accelerator Pedal Position Signal 1	49	0.35	YE/ WH	1161	II	—
50	0.5	WH/ RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	50	0.35	WH/ RD	1164	II	—
51	0.5	BN/ RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	51	0.35	BN/ RD	1274	II	—
53	0.5	BU/ YE	7574	I	—	Electric Variable Displacement Control	53	0.35	BU/ YE	7574	II	—

X115 Engine Harness to Body Harness (Crew Cab+(L84/L87))





Connector Part Information

Harness Type: Engine

OEM Connector: 35179598

Service Connector: 19371184

Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Connector Part Information

Harness Type: Body

OEM Connector: 33357992

Service Connector: 84727363

Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X115 Engine Harness to Body Harness (Crew Cab+(L84/L87))

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	0.5	BK/ BU	1271	I	—	Accelerator Pedal Position Low Reference 1	3	0.35	BK/ BU	1271	II	—
4	0.5	BN/ WH	419	I	—	Check Engine Indicator Control	4	0.35	BN/ WH	419	II	—
5	0.5	GN/ WH	1162	I	—	Accelerator Pedal Position Signal 2	5	0.35	GN/ WH	1162	II	—
6 - 14	—	—	—	—	—	Not Occupied	6 - 14	—	—	—	—	—
15	0.5	YE	4063	I	—	Hood Status A Signal	15	0.35	YE	4063	II	—
16	0.5	VT/ GN	439	I	—	Run/Crank Ignition 1 Voltage	16	0.5	VT/ GN	439	II	—

X115 Engine Harness to Body Harness (Crew Cab+(L84/L87)) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
17	0.5	WH/ BU	5986	I	—	Serial Data Communication Enable	17	0.35	WH/ BU	5986	II	—
18	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	18	0.35	BK/ GY	2204	II	—
19	0.5	WH/ BN	2203	I	—	Enhanced Driver Mode 2 Switch Signal	19	0.35	WH/ BN	2203	II	—
20	0.5	BU/ RD	460	I	—	Engine Control Sensors 5 Volt Reference (1)	20	0.35	GY	4109	II	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	0.5	VT/ YE	5985	I	—	Accessory Wakeup Serial Data	22	0.35	VT/ YE	5985	II	—
23	0.5	GN/ VT	4621	I	—	Local Interconnect Network Serial Data Bus 21	23	0.5	GN/ VT	4621	II	—
24	0.5	BU/ BK	7493	I	—	High Speed GMLAN Serial Data (+)3	24	0.5	BU/ BK	7493	II	—
25	0.5	WH	7494	I	—	High Speed GMLAN Serial Data (-)3	25	0.5	WH	7494	II	—
26	0.5	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	26	0.35	BU/ GY	636	II	—
27 - 30	—	—	—	—	—	Not Occupied	27 - 30	—	—	—	—	—
31	0.5	WH/ BU	6311	I	—	Cruise/ETC/ TCC Brake Signal	31	0.35	WH/ BU	6311	II	—
32	0.5	VT/ BU	6091	I	—	Crankshaft Position Sensor Replicated Signal	32	0.35	VT/ BU	6091	II	—
33	0.5	BN	1560	I	—	Neutral Indicator Control	33	0.35	BN	1560	II	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—

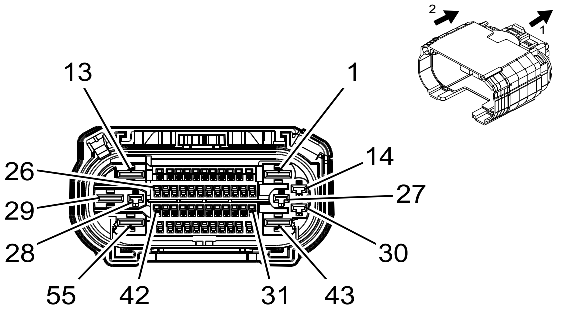
X115 Engine Harness to Body Harness (Crew Cab+(L84/L87)) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
35	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	35	0.35	BK/ YE	5382	II	—
36	0.5	WH/ GN	5380	I	—	Brake Position Sensor Signal	36	0.35	WH/ GN	5380	II	—
37	0.5	WH/ RD	480	I	—	Engine Control Sensors 5 Volt Reference (2)	37	0.35	WH/ RD	5381	II	—
38	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	38	0.5	BU	2500	II	—
39	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	39	0.5	WH	2501	II	—
40	0.5	BK/ VT	1272	I	—	Accelerator Pedal Position Low Reference 2	40	0.35	BK/ VT	1272	II	—
41	—	—	—	—	—	Not Occupied	41	—	—	—	—	—
42	0.5	YE/ BK	625	I	—	Starter Enable Relay Control	42	0.5	YE/ BK	625	II	—
43	4	BK/ WH	451	I	—	Signal Ground	43	6	BK/ WH	2251	II	—
44	1.5	RD/ GN	1840	I	—	Battery Positive Voltage	44	1	RD/ GN	1840	II	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.5	BK/ GN	580	I	—	Engine Control Sensors Low Reference (2)	46	0.35	BK/ GN	580	II	—
47	0.5	BU/ BN	7573	I	—	Electric Variable Displacement Supply	47	0.35	BU/ BN	7573	II	—
48	—	—	—	—	—	Not Occupied	48	—	—	—	—	—
49	0.5	YE/ WH	1161	I	—	Accelerator Pedal Position Signal 1	49	0.35	YE/ WH	1161	II	—
50	0.5	WH/ RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	50	0.35	WH/ RD	1164	II	—

X115 Engine Harness to Body Harness (Crew Cab+(L84/L87)) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
51	0.5	BN/RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	51	0.35	BN/RD	1274	II	—
52	—	—	—	—	—	Not Occupied	52	—	—	—	—	—
53	0.5	BU/YE	7574	I	—	Electric Variable Displacement Control	53	0.35	BU/YE	7574	II	—
54 - 55	—	—	—	—	—	Not Occupied	54 - 55	—	—	—	—	—

X115 Engine Harness to Body Harness (Crew Cab+L3B)



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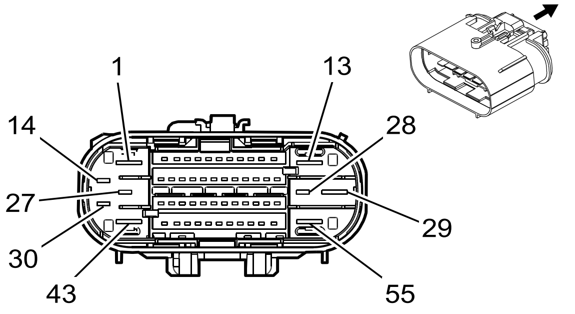


4994369

Connector Part Information

Harness Type: Engine

OEM Connector: 35179575

Service Connector: 19371184

Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Connector Part Information

Harness Type: Body

OEM Connector: 33357992

Service Connector: 84727363

Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X115 Engine Harness to Body Harness (Crew Cab+L3B)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	0.5	BK/BU	1271	I	—	Accelerator Pedal Position Low Reference 1	3	0.35	BK/BU	1271	II	—
4	0.5	BN/WH	419	I	—	Check Engine Indicator Control	4	0.35	BN/WH	419	II	—
5	0.5	GN/WH	1162	I	—	Accelerator Pedal Position Signal 2	5	0.35	GN/WH	1162	II	—
6 - 14	—	—	—	—	—	Not Occupied	6 - 14	—	—	—	—	—
15	0.5	YE	4063	I	—	Hood Status A Signal	15	0.35	YE	4063	II	—
16	0.5	VT/GN	439	I	—	Run/Crank Ignition 1 Voltage	16	0.5	VT/GN	439	II	—

X115 Engine Harness to Body Harness (Crew Cab+L3B) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
17	0.5	WH/BU	5986	I	—	Serial Data Communication Enable	17	0.35	WH/BU	5986	II	—
18	0.5	BK/GY	626	I	—	Engine Control Sensors Low Reference (3)	18	0.35	BK/GY	2204	II	—
19	0.5	WH/VT	4108	I	—	Driver Mode Switch Signal	19	0.35	WH/BN	2203	II	—
20	0.5	BU/RD	460	I	—	Engine Control Sensors 5 Volt Reference (1)	20	0.35	GY	4109	II	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	0.5	VT/YE	5985	I	—	Accessory Wakeup Serial Data	22	0.35	VT/YE	5985	II	—
23	0.5	GN/VT	4621	I	—	Local Interconnect Network Serial Data Bus 21	23	0.5	GN/VT	4621	II	—
24	0.5	BU/BK	7493	I	—	High Speed GMLAN Serial Data (+)3	24	0.5	BU/BK	7493	II	—
25	0.5	WH	7494	I	—	High Speed GMLAN Serial Data (-)3	25	0.5	WH	7494	II	—
26	0.5	BU/GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	26	0.35	BU/GY	636	II	—
27 - 30	—	—	—	—	—	Not Occupied	27 - 30	—	—	—	—	—
31	0.5	WH/BU	6311	I	—	Cruise/ETC/TCC Brake Signal	31	0.35	WH/BU	6311	II	—
32	0.5	VT/BU	6091	I	—	Crankshaft Position Sensor Replicated Signal	32	0.35	VT/BU	6091	II	—
33	0.5	BN	1560	I	—	Neutral Indicator Control	33	0.35	BN	1560	II	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	BK/GY	626	I	—	Engine Control Sensors Low Reference (3)	35	0.35	BK/YE	5382	II	—

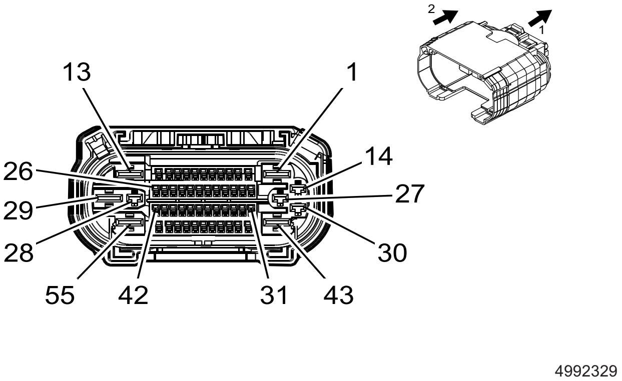
X115 Engine Harness to Body Harness (Crew Cab+L3B) (cont'd)

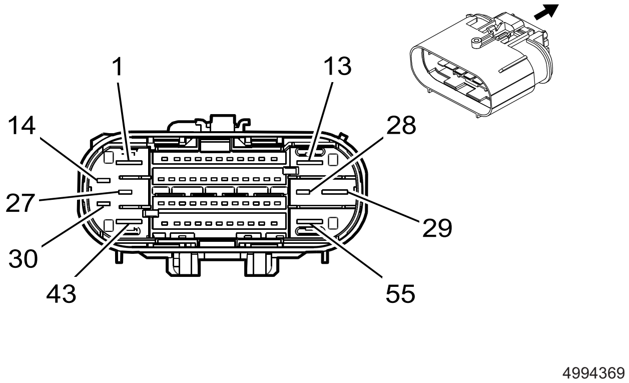
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
36	0.5	WH/ GN	5380	I	—	Brake Position Sensor Signal	36	0.35	WH/ GN	5380	II	—
37	0.5	WH/ RD	480	I	—	Engine Control Sensors 5 Volt Reference (2)	37	0.35	WH/ RD	5381	II	—
38	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	38	0.5	BU	2500	II	—
39	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	39	0.5	WH	2501	II	—
40	0.5	BK/ VT	1272	I	—	Accelerator Pedal Position Low Reference 2	40	0.35	BK/ VT	1272	II	—
41	—	—	—	—	—	Not Occupied	41	—	—	—	—	—
42	0.5	YE/ BK	625	I	—	Starter Enable Relay Control	42	0.5	YE/ BK	625	II	—
43	4	BK/ WH	451	I	—	Signal Ground	43	6	BK/ WH	2251	II	—
44	1.5	RD/ GN	1840	I	—	Battery Positive Voltage	44	1	RD/ GN	1840	II	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.5	BK/ GN	580	I	—	Engine Control Sensors Low Reference (2)	46	0.35	BK/ GN	580	II	—
47	0.5	BU/ BN	7573	I	—	Electric Variable Displacement Supply	47	0.35	BU/ BN	7573	II	—
48	0.5	RD/ GN	40	I	—	Battery Positive Voltage	48	0.35	RD/ GN	40	II	—
49	0.5	YE/ WH	1161	I	—	Accelerator Pedal Position Signal 1	49	0.35	YE/ WH	1161	II	—
50	0.5	WH/ RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	50	0.35	WH/ RD	1164	II	—
51	0.5	BN/ RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	51	0.35	BN/ RD	1274	II	—
52	—	—	—	—	—	Not Occupied	52	—	—	—	—	—

X115 Engine Harness to Body Harness (Crew Cab+L3B) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
53	0.5	BU/YE	7574	I	—	Electric Variable Displacement Control	53	0.35	BU/YE	7574	II	—
54 - 55	—	—	—	—	—	Not Occupied	54 - 55	—	—	—	—	—

X115 Engine Harness to Body Harness (Crew Cab+L82)





Connector Part Information

Harness Type: Engine
OEM Connector: 35179599
Service Connector: 19371184
Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 33357992
Service Connector: 84727363
Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X115 Engine Harness to Body Harness (Crew Cab+L82)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	0.5	BK/ BU	1271	I	—	Accelerator Pedal Position Low Reference 1	3	0.35	BK/ BU	1271	II	—
4	0.5	BN/ WH	419	I	—	Check Engine Indicator Control	4	0.35	BN/ WH	419	II	—
5	0.5	GN/ WH	1162	I	—	Accelerator Pedal Position Signal 2	5	0.35	GN/ WH	1162	II	—
6 - 14	—	—	—	—	—	Not Occupied	6 - 14	—	—	—	—	—
15	0.5	YE	4063	I	—	Hood Status A Signal	15	0.35	YE	4063	II	—
16	0.5	VT/ GN	439	I	—	Run/Crank Ignition 1 Voltage	16	0.5	VT/ GN	439	II	—

X115 Engine Harness to Body Harness (Crew Cab+L82) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
17	0.5	WH/BU	5986	I	—	Serial Data Communication Enable	17	0.35	WH/BU	5986	II	—
18	0.5	BK/GY	626	I	—	Engine Control Sensors Low Reference (3)	18	0.35	BK/GY	2204	II	—
19	0.5	WH/BN	2203	I	—	Enhanced Driver Mode 2 Switch Signal	19	0.35	WH/BN	2203	II	—
20	0.5	BU/RD	460	I	—	Engine Control Sensors 5 Volt Reference (1)	20	0.35	GY	4109	II	—
21	—	—	—	—	—	Not Occupied	21	—	—	—	—	—
22	0.5	VT/YE	5985	I	—	Accessory Wakeup Serial Data	22	0.35	VT/YE	5985	II	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	BU/BK	7493	I	—	High Speed GMLAN Serial Data (+)3	24	0.5	BU/BK	7493	II	—
25	0.5	WH	7494	I	—	High Speed GMLAN Serial Data (-)3	25	0.5	WH	7494	II	—
26	0.5	BU/GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	26	0.35	BU/GY	636	II	—
27 - 30	—	—	—	—	—	Not Occupied	27 - 30	—	—	—	—	—
31	0.5	WH/BU	6311	I	—	Cruise/ETC/TCC Brake Signal	31	0.35	WH/BU	6311	II	—
32	0.5	VT/BU	6091	I	—	Crankshaft Position Sensor Replicated Signal	32	0.35	VT/BU	6091	II	—
33	0.5	BN	1560	I	—	Neutral Indicator Control	33	0.35	BN	1560	II	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	BK/GY	626	I	—	Engine Control Sensors Low Reference (3)	35	0.35	BK/YE	5382	II	—

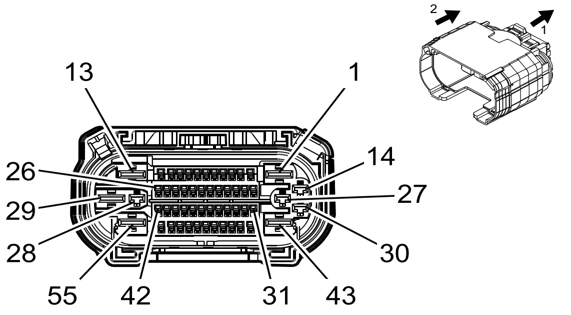
X115 Engine Harness to Body Harness (Crew Cab+L82) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
36	0.5	WH/ GN	5380	I	—	Brake Position Sensor Signal	36	0.35	WH/ GN	5380	II	—
37	0.5	WH/ RD	480	I	—	Engine Control Sensors 5 Volt Reference (2)	37	0.35	WH/ RD	5381	II	—
38	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	38	0.5	BU	2500	II	—
39	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	39	0.5	WH	2501	II	—
40	0.5	BK/ VT	1272	I	—	Accelerator Pedal Position Low Reference 2	40	0.35	BK/ VT	1272	II	—
41 - 42	—	—	—	—	—	Not Occupied	41 - 42	—	—	—	—	—
43	4	BK/ WH	451	I	—	Signal Ground	43	6	BK/ WH	2251	II	—
44	1.5	RD/ GN	1840	I	—	Battery Positive Voltage	44	1	RD/ GN	1840	II	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.5	BK/ GN	580	I	—	Engine Control Sensors Low Reference (2)	46	0.35	BK/ GN	580	II	—
47	0.5	BU/ BN	7573	I	—	Electric Variable Displacement Supply	47	0.35	BU/ BN	7573	II	—
48	—	—	—	—	—	Not Occupied	48	—	—	—	—	—
49	0.5	YE/ WH	1161	I	—	Accelerator Pedal Position Signal 1	49	0.35	YE/ WH	1161	II	—
50	0.5	WH/ RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	50	0.35	WH/ RD	1164	II	—
51	0.5	BN/ RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	51	0.35	BN/ RD	1274	II	—
52	—	—	—	—	—	Not Occupied	52	—	—	—	—	—
53	0.5	BU/ YE	7574	I	—	Electric Variable Displacement Control	53	0.35	BU/ YE	7574	II	—

X115 Engine Harness to Body Harness (Crew Cab+L82) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
54 - 55	—	—	—	—	—	Not Occupied	54 - 55	—	—	—	—	—

X115 Engine Harness to Body Harness (Crew Cab+LM2)



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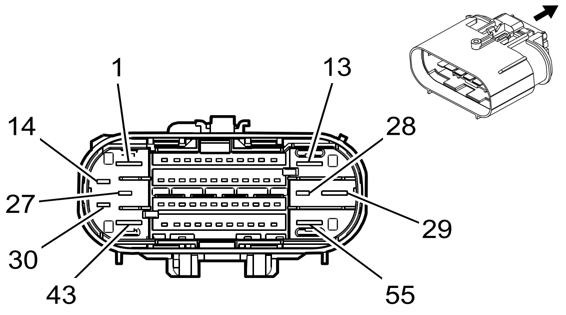

4994369

Connector Part Information

Harness Type: Engine
OEM Connector: 35016653
Service Connector: 19371184
Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 33357992
Service Connector: 84727363
Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X115 Engine Harness to Body Harness (Crew Cab+LM2)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	1	BK	9003	I	—	—	2	1	BK	9003	II	—
3	0.5	BK/ BU	1271	I	—	Accelerator Pedal Position Low Reference 1	3	0.35	BK/ BU	1271	II	—
4	0.5	BN/ WH	419	I	—	Check Engine Indicator Control	4	0.35	BN/ WH	419	II	—
5	0.5	GN/ WH	1162	I	—	Accelerator Pedal Position Signal 2	5	0.35	GN/ WH	1162	II	—
6	0.5	GN/ BN	507	I	—	Wait To Start Indicator Control	6	0.35	GN/ BN	507	II	—
7 - 11	—	—	—	—	—	Not Occupied	7 - 11	—	—	—	—	—
12	1	BK	9003	I	—	—	12	1	BK	9003	II	—
13 - 14	—	—	—	—	—	Not Occupied	13 - 14	—	—	—	—	—

X115 Engine Harness to Body Harness (Crew Cab+LM2) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
15	0.5	YE	4063	I	—	Hood Status A Signal	15	0.35	YE	4063	II	—
16	0.5	VT/ GN	439	I	—	Run/Crank Ignition 1 Voltage	16	0.5	VT/ GN	439	II	—
17	0.5	WH/ BU	5986	I	—	Serial Data Communication Enable	17	0.35	WH/ BU	5986	II	—
18	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	18	0.35	BK/ GY	2204	II	—
19	0.5	WH/ BN	2203	I	—	Enhanced Driver Mode 2 Switch Signal	19	0.35	WH/ BN	2203	II	—
20	0.5	BU/ RD	460	I	—	Engine Control Sensors 5 Volt Reference (1)	20	0.35	GY	4109	II	—
21	—	—	—	—	—	Powertrain Relay Coil Control	21	0.5	YE	5991	II	—
22	0.5	VT/ YE	5985	I	—	Accessory Wakeup Serial Data	22	0.35	VT/ YE	5985	II	—
23	0.5	GN/ VT	4621	I	—	Local Interconnect Network Serial Data Bus 21	23	0.5	GN/ VT	4621	II	—
24	0.5	BU/ BK	7493	I	—	High Speed GMLAN Serial Data (+)3	24	0.5	BU/ BK	7493	II	—
25	0.5	WH	7494	I	—	High Speed GMLAN Serial Data (-)3	25	0.5	WH	7494	II	—
26	0.5	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	26	0.35	BU/ GY	636	II	—
27 - 30	—	—	—	—	—	Not Occupied	27 - 30	—	—	—	—	—
31	0.5	WH/ BU	6311	I	—	Cruise/ETC/ TCC Brake Signal	31	0.35	WH/ BU	6311	II	—
32	0.5	VT/ BU	6091	I	—	Crankshaft Position Sensor Replicated Signal	32	0.35	VT/ BU	6091	II	—
33	0.5	BN	1560	I	—	Neutral Indicator Control	33	0.35	BN	1560	II	—

X115 Engine Harness to Body Harness (Crew Cab+LM2) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
34	—	—	—	—	—	Accessory Ignition Voltage	34	0.35	VT/ YE	43	II	—
35	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	35	0.35	BK/ YE	5382	II	—
36	0.5	WH/ GN	5380	I	—	Brake Position Sensor Signal	36	0.35	WH/ GN	5380	II	—
37	0.5	WH/ RD	480	I	—	Engine Control Sensors 5 Volt Reference (2)	37	0.35	WH/ RD	5381	II	—
38	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	38	0.5	BU	2500	II	—
39	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	39	0.5	WH	2501	II	—
40	0.5	BK/ VT	1272	I	—	Accelerator Pedal Position Low Reference 2	40	0.35	BK/ VT	1272	II	—
41	—	—	—	—	—	Powertrain Relay Coil Control	41	0.5	YE	5991	II	—
42	0.5	YE/ BK	625	I	—	Starter Enable Relay Control	42	0.5	YE/ BK	625	II	—
43	6	BK/ WH	451	I	—	Signal Ground	43	6	BK/ WH	2251	II	—
44	1.5	RD/ GN	1840	I	—	Battery Positive Voltage	44	1	RD/ GN	1840	II	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.5	BK/ GN	580	I	—	Engine Control Sensors Low Reference (2)	46	0.35	BK/ GN	580	II	—
47	0.5	BU/ BN	7573	I	—	Electric Variable Displacement Supply	47	0.35	BU/ BN	7573	II	—
48	0.5	RD/ GN	40	I	—	Battery Positive Voltage	48	0.35	RD/ GN	40	II	—
49	0.5	YE/ WH	1161	I	—	Accelerator Pedal Position Signal 1	49	0.35	YE/ WH	1161	II	—

X115 Engine Harness to Body Harness (Crew Cab+LM2) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
50	0.5	WH/ RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	50	0.35	WH/ RD	1164	II	—
51	0.5	BN/ RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	51	0.35	BN/ RD	1274	II	—
52	—	—	—	—	—	Not Occupied	52	—	—	—	—	—
53	0.5	BU/ YE	7574	I	—	Electric Variable Displacement Control	53	0.35	BU/ YE	7574	II	—
54	1	BK	9003	I	—	—	54	1	BK	9003	II	—
55	—	—	—	—	—	Not Occupied	55	—	—	—	—	—

X115 Engine Harness to Body Harness (Crew Cab+LV3)

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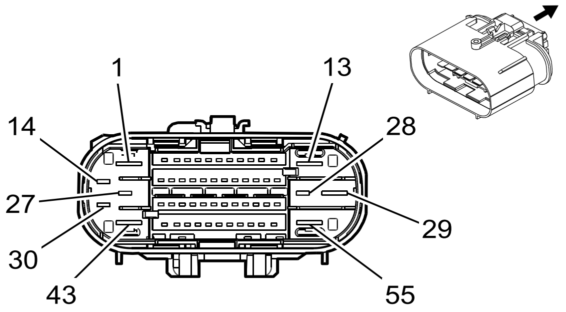


4994369

Connector Part Information

Harness Type: Engine
OEM Connector: 35179597
Service Connector: 19371184
Description: 55-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 33357992
Service Connector: 84727363
Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X115 Engine Harness to Body Harness (Crew Cab+LV3)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5	BK/ BU	1271	I	—	Accelerator Pedal Position Low Reference 1	3	0.35	BK/ BU	1271	II	—
4	0.5	BN/ WH	419	I	—	Check Engine Indicator Control	4	0.35	BN/ WH	419	II	—
5	0.5	GN/ WH	1162	I	—	Accelerator Pedal Position Signal 2	5	0.35	GN/ WH	1162	II	—
15	0.5	YE	4063	I	—	Hood Status A Signal	15	0.35	YE	4063	II	—
16	0.5	VT/ GN	439	I	—	Run/Crank Ignition 1 Voltage	16	0.5	VT/ GN	439	II	—
17	0.5	WH/ BU	5986	I	—	Serial Data Communication Enable	17	0.35	WH/ BU	5986	II	—

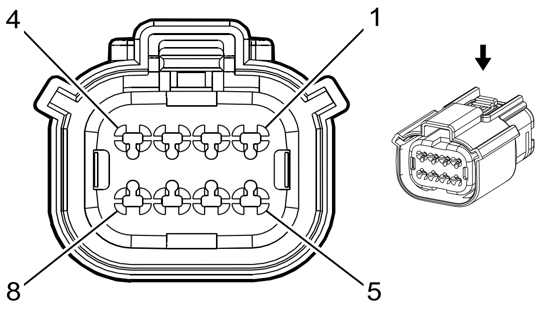
X115 Engine Harness to Body Harness (Crew Cab+LV3) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
18	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	18	0.35	BK/ GY	2204	II	—
19	0.5	WH/ BN	2203	I	—	Enhanced Driver Mode 2 Switch Signal	19	0.35	WH/ BN	2203	II	—
20	0.5	BU/ RD	460	I	—	Engine Control Sensors 5 Volt Reference (1)	20	0.35	GY	4109	II	—
22	0.5	VT/ YE	5985	I	—	Accessory Wakeup Serial Data	22	0.35	VT/ YE	5985	II	—
24	0.5	BU/ BK	7493	I	—	High Speed GMLAN Serial Data (+)3	24	0.5	BU/ BK	7493	II	—
25	0.5	WH	7494	I	—	High Speed GMLAN Serial Data (-)3	25	0.5	WH	7494	II	—
26	0.5	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	26	0.35	BU/ GY	636	II	—
31	0.5	WH/ BU	6311	I	—	Cruise/ETC/ TCC Brake Signal	31	0.35	WH/ BU	6311	II	—
32	0.5	VT/ BU	6091	I	—	Crankshaft Position Sensor Replicated Signal	32	0.35	VT/ BU	6091	II	—
33	0.5	BN	1560	I	—	Neutral Indicator Control	33	0.35	BN	1560	II	—
35	0.5	BK/ GY	626	I	—	Engine Control Sensors Low Reference (3)	35	0.35	BK/ YE	5382	II	—
36	0.5	WH/ GN	5380	I	—	Brake Position Sensor Signal	36	0.35	WH/ GN	5380	II	—
37	0.5	WH/ RD	480	I	—	Engine Control Sensors 5 Volt Reference (2)	37	0.35	WH/ RD	5381	II	—
38	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	38	0.5	BU	2500	II	—

X115 Engine Harness to Body Harness (Crew Cab+LV3) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
39	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	39	0.5	WH	2501	II	—
40	0.5	BK/VT	1272	I	—	Accelerator Pedal Position Low Reference 2	40	0.35	BK/VT	1272	II	—
43	4	BK/WH	451	I	—	Signal Ground	43	6	BK/WH	2251	II	—
44	1.5	RD/GN	1840	I	—	Battery Positive Voltage	44	1	RD/GN	1840	II	—
46	0.5	BK/GN	580	I	—	Engine Control Sensors Low Reference (2)	46	0.35	BK/GN	580	II	—
47	0.5	BU/BN	7573	I	—	Electric Variable Displacement Supply	47	0.35	BU/BN	7573	II	—
49	0.5	YE/WH	1161	I	—	Accelerator Pedal Position Signal 1	49	0.35	YE/WH	1161	II	—
50	0.5	WH/RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	50	0.35	WH/RD	1164	II	—
51	0.5	BN/RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	51	0.35	BN/RD	1274	II	—
53	0.5	BU/YE	7574	I	—	Electric Variable Displacement Control	53	0.35	BU/YE	7574	II	—

X120 Body Harness to Headlamp - Right Harness (Crew Cab)



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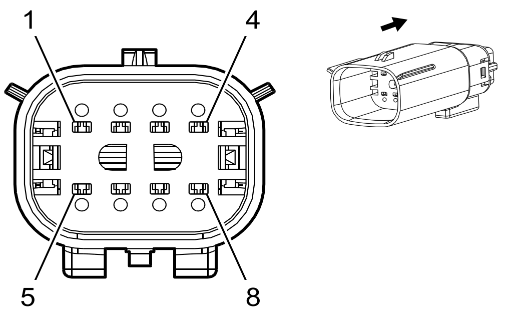


2667653

Connector Part Information

Harness Type: Body
OEM Connector: 13654393
Service Connector: 19366859
Description: 8-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Headlamp - Right
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

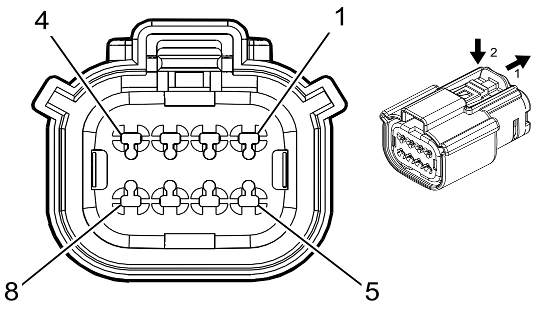
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X120 Body Harness to Headlamp - Right Harness (Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	250	I	—	Ground	1	0.75	BK	250	II	—
2	0.75	YE/ GY	2226	I	—	Right Headlamp Control	2	0.75	YE/ GY	2226	II	—
3	1	YE	312	I	—	Right Headlamp Low Beam Control	3	1	YE	312	II	—
4	0.75	WH	311	I	—	Right Headlamp High Beam Control	4	0.75	WH	311	II	—
5	0.5	GY/ BN	309	I	—	Right Park Lamp Control	5	0.5	GY/ BN	309	II	—
6	0.35	WH/ BU	3203	I	—	Right Headlamp Bulb Outage Signal	6	0.35	WH/ BU	3203	II	—
7	0.5	GN/ VT	1315	I	—	Right Front Turn Signal Lamp Control	7	0.5	—	1315	II	—
8	0.35	BU/ BN	7539	I	—	Right Front DRL Control	8	0.35	BU/ BN	7539	II	—

X120 Body Harness to Headlamp - Right Harness (Extended Cab)



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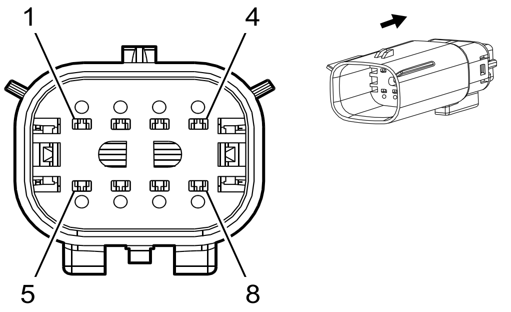


2667653

Connector Part Information

Harness Type: Body
OEM Connector: 35037827
Service Connector: 19366859
Description: 8-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Headlamp - Right
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

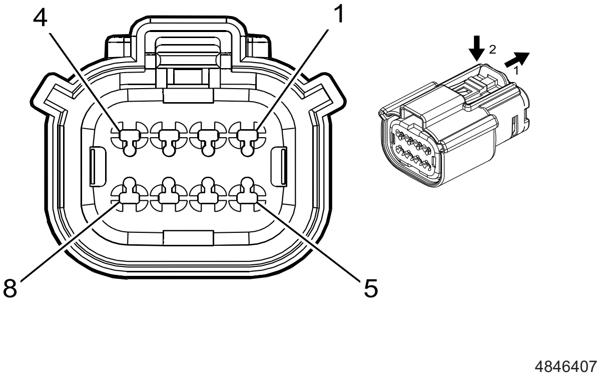
Terminal Part Information

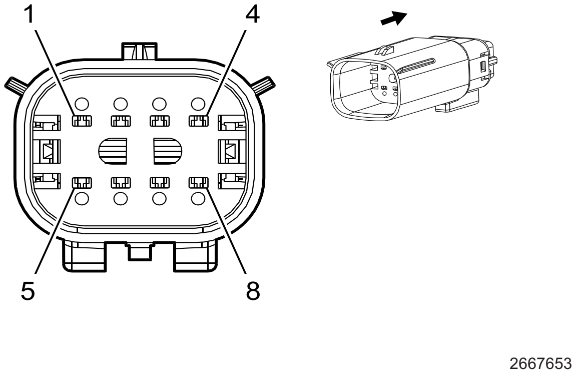
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X120 Body Harness to Headlamp - Right Harness (Extended Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	250	I	—	Ground	1	0.75	BK	250	II	—
2	0.75	YE/ GY	2226	I	—	Right Headlamp Control	2	0.75	YE/ GY	2226	II	—
3	1	YE	312	I	—	Right Headlamp Low Beam Control	3	1	YE	312	II	—
4	0.75	WH	311	I	—	Right Headlamp High Beam Control	4	0.75	WH	311	II	—
5	0.5	GY/ BN	309	I	—	Right Park Lamp Control	5	0.5	GY/ BN	309	II	—
6	0.35	WH/ BU	3203	I	—	Right Headlamp Bulb Outage Signal	6	0.35	WH/ BU	3203	II	—
7	0.5	GN/ VT	1315	I	—	Right Front Turn Signal Lamp Control	7	0.5	—	1315	II	—
8	0.35	BU/ BN	7539	I	—	Right Front DRL Control	8	0.35	BU/ BN	7539	II	—

X120 Body Harness to Headlamp - Right Harness (Regular Cab)





Connector Part Information

Harness Type: Body
OEM Connector: 35037827
Service Connector: 19366859
Description: 8-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Headlamp - Right
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

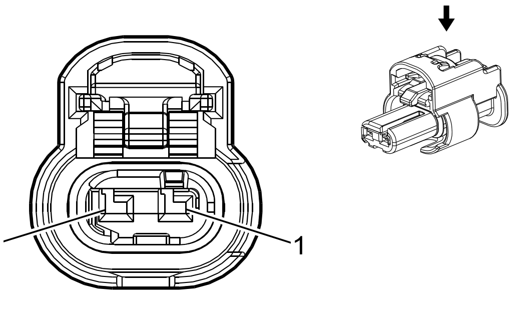
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X120 Body Harness to Headlamp - Right Harness (Regular Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	250	I	—	Ground	1	0.75	BK	250	II	—
2	0.75	YE/GY	2226	I	—	Right Headlamp Control	2	0.75	YE/GY	2226	II	—
3	1	YE	312	I	—	Right Headlamp Low Beam Control	3	1	YE	312	II	—
4	0.75	WH	311	I	—	Right Headlamp High Beam Control	4	0.75	WH	311	II	—
5	0.5	GY/BN	309	I	—	Right Park Lamp Control	5	0.5	GY/BN	309	II	—
6	0.35	WH/BU	3203	I	—	Right Headlamp Bulb Outage Signal	6	0.35	WH/BU	3203	II	—
7	0.5	GN/VT	1315	I	—	Right Front Turn Signal Lamp Control	7	0.5	—	1315	II	—
8	0.35	BU/BN	7539	I	—	Right Front DRL Control	8	0.35	BU/BN	7539	II	—

X136 Chassis Harness to Electronic Suspension Strut Extension Harness (Z45)



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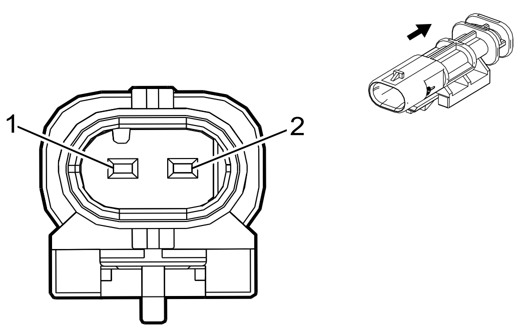


2474755

Connector Part Information

Harness Type: Chassis
OEM Connector: 33327048
Service Connector: 19366858
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

Connector Part Information

Harness Type: Electronic Suspension Strut Extension
OEM Connector: 2203314-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 Multilock Series, Sealed (BK)

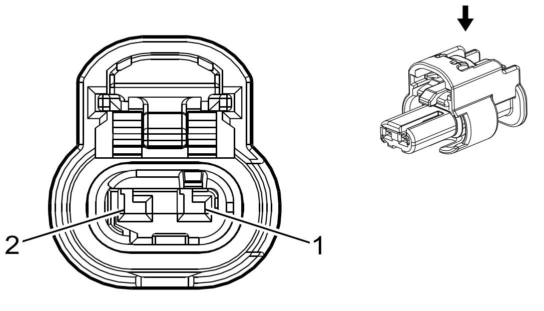
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X136 Chassis Harness to Electronic Suspension Strut Extension Harness (Z45)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BN/WH	1107	I	—	Left Front Damping Servo Control	1	0.75	BU/WH	1107	II	—
2	0.75	GY/BU	1113	I	—	Left Front Damping Servo Control	2	0.75	GY	1113	II	—

X137 Chassis Harness to Electronic Suspension Strut Extension Harness (Z45)



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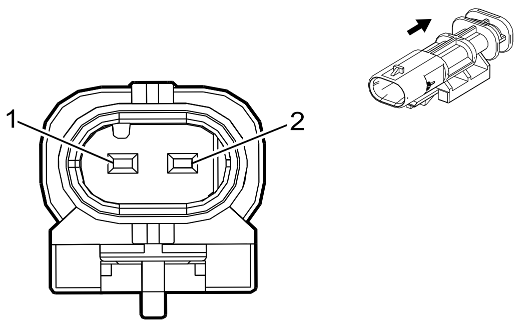


2474755

Connector Part Information

Harness Type: Chassis
OEM Connector: 33327048
Service Connector: 19366858
Description: 2-Way F 1.2 MCON Series, Sealed (BK)

Connector Part Information

Harness Type: Electronic Suspension Strut Extension
OEM Connector: 2203314-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 Multilock Series, Sealed (BK)

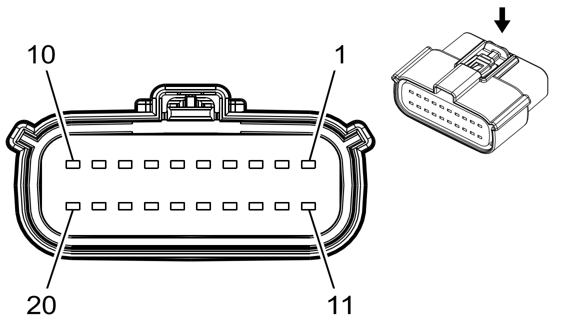
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X137 Chassis Harness to Electronic Suspension Strut Extension Harness (Z45)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BN/ BU	1116	I	—	Right Front Damping Servo Control	1	0.75	BU/ WH	1116	II	—
2	0.75	GY/ WH	1117	I	—	Right Front Damping Servo Control	2	0.75	GY	1117	II	—

X138 Body Harness to Chassis Harness (Crew Cab)



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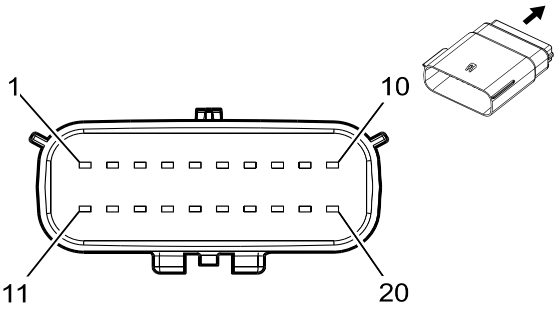


2871861

Connector Part Information

Harness Type: Body
OEM Connector: 35210697
Service Connector: 19300557
Description: 20-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 33181044
Service Connector: 19351705
Description: 20-Way M 1.5 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

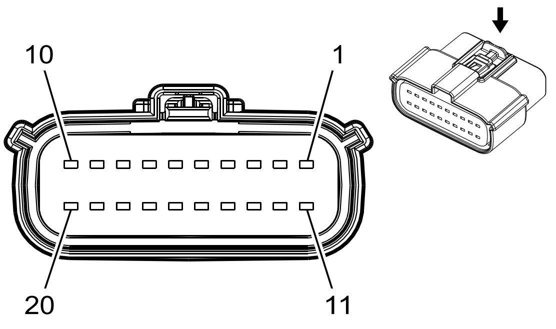
X138 Body Harness to Chassis Harness (Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT/ GN	1739	I	—	Run/Crank Ignition 1 Voltage	1	0.5	VT/ GN	1739	II	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.35	WH/ BU	6973	I	—	Camera Signal 2	3	0.5	WH/ BU	6973	II	—
4	0.75	GN/ BN	2266	I	—	DC To AC Inverter Control 2	4	0.75	GN/ BN	2266	II	—
5	0.5	VT/ WH	5065	I	—	Stop Lamp Relay Coil Control	5	0.5	VT/ WH	5065	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.5	BN/ GN	3568	I	—	Passive Entry Rear Closure Antenna Signal Hi	7	0.5	BN/ GN	3568	II	—
8	0.75	BK/ WH	2264	I	—	120 VAC Phase A 2	8	0.75	BK/ WH	2264	II	—
9 - 10	—	—	—	—	—	Not Occupied	9 - 10	—	—	—	—	—

X138 Body Harness to Chassis Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	11	0.5	GN	5060	II	—
12	0.35	BK	6974	I	—	Camera Low Reference	12	0.5	BU	6974	II	—
13	0.35	GY/ YE	6972	I	—	Camera Signal 2 +	13	0.5	GY/ YE	6972	II	—
14	0.75	RD/ WH	2265	I	—	120 VAC Phase B 2	14	0.75	RD/ WH	2265	II	—
15	0.35	WH/ BU	5986	I	—	Serial Data Communication Enable	15	0.5	WH/ BU	5986	II	—
16	1	WH/ VT	1430	I	—	Exterior Courtesy Lamp Control	16	0.5	WH/ VT	1430	II	—
17	0.5	GN/ GY	3569	I	—	Passive Entry Rear Closure Antenna Signal Lo	17	0.5	GN/ GY	3569	II	—
18	0.35	BN	2257	I	—	Drain Wire	18	0.5	BN	2257	II	—
19	0.5	BU/ GN	1304	I	—	High Speed GMLAN Serial Data (+)9	19	0.5	BU/ GN	1304	II	—
20	0.5	WH/ GN	1305	I	—	High Speed GMLAN Serial Data (-)9	20	0.5	WH/ GN	1305	II	—

X138 Body Harness to Chassis Harness (Extended Cab)



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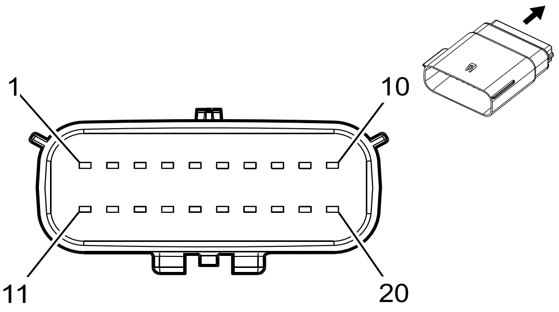


2871861

Connector Part Information

Harness Type: Body
OEM Connector: 13650143
Service Connector: 19300557
Description: 20-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33181044
Service Connector: 19351705
Description: 20-Way M 1.5 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

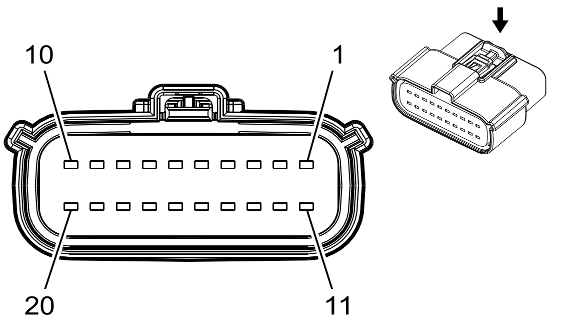
X138 Body Harness to Chassis Harness (Extended Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT/GN	1739	I	—	Run/Crank Ignition 1 Voltage	1	0.5	VT/GN	1739	II	—
2	0.35	BN/WH	7462	I	—	Running Boards Disable Signal	2	0.5	BN/WH	7462	II	—
3	0.35	WH/BU	6973	I	—	Camera Signal 2	3	0.5	WH/BU	6973	II	—
4	0.75	GN/BN	2266	I	—	DC To AC Inverter Control 2	4	0.75	GN/BN	2266	II	—
5	0.5	VT/WH	5065	I	—	Stop Lamp Relay Coil Control	5	0.5	VT/WH	5065	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.5	BN/GN	3568	I	—	Passive Entry Rear Closure Antenna Signal Hi	7	0.5	BN/GN	3568	II	—
8	0.75	BK/WH	2264	I	—	120 VAC Phase A 2	8	0.75	BK/WH	2264	II	—

X138 Body Harness to Chassis Harness (Extended Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	—	—	—	—	—	Battery Positive Voltage	10	0.5	RD/YE	2340	II	—
11	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	11	0.5	GN	5060	II	—
12	0.35	BK	6974	I	—	Camera Low Reference	12	0.5	BU	6974	II	—
13	0.35	GY/YE	6972	I	—	Camera Signal 2 +	13	0.5	GY/YE	6972	II	—
14	0.75	RD/WH	2265	I	—	120 VAC Phase B 2	14	0.75	RD/WH	2265	II	—
15	0.35	WH/BU	5986	I	—	Serial Data Communication Enable	15	0.5	WH/BU	5986	II	—
16	1	WH/VT	1430	I	—	Exterior Courtesy Lamp Control	16	0.5	WH/VT	1430	II	—
17	0.5	GN/GY	3569	I	—	Passive Entry Rear Closure Antenna Signal Lo	17	0.5	GN/GY	3569	II	—
18	0.35	BN	2257	I	—	Drain Wire	18	0.5	BN	2257	II	—
19	0.5	BU/GN	1304	I	—	High Speed GMLAN Serial Data (+)9	19	0.5	BU/GN	1304	II	—
20	0.5	WH/GN	1305	I	—	High Speed GMLAN Serial Data (-)9	20	0.5	WH/GN	1305	II	—

X138 Body Harness to Chassis Harness (Regular Cab)



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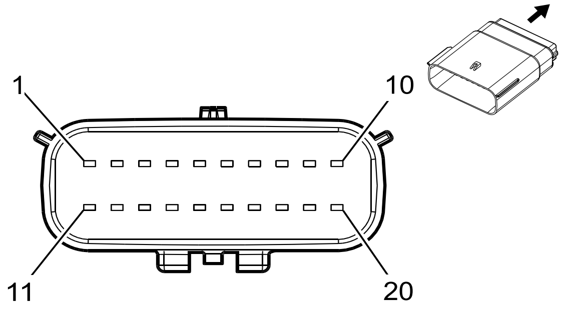


2871861

Connector Part Information

Harness Type: Body
OEM Connector: 13650143
Service Connector: 19300557
Description: 20-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33181044
Service Connector: 19351705
Description: 20-Way M 1.5 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

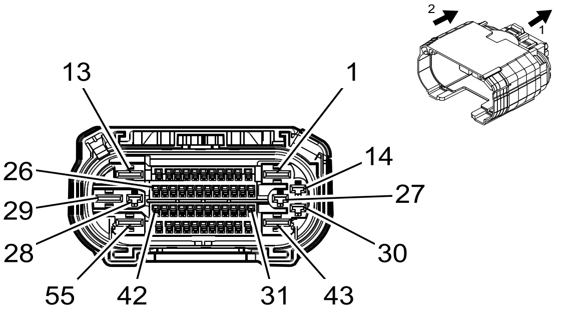
X138 Body Harness to Chassis Harness (Regular Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT/ GN	1739	I	—	Run/Crank Ignition 1 Voltage	1	0.5	VT/ GN	1739	II	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.35	WH/ BU	6973	I	—	Camera Signal 2	3	0.5	WH/ BU	6973	II	—
4	0.75	GN/ BN	2266	I	—	DC To AC Inverter Control 2	4	0.75	GN/ BN	2266	II	—
5 - 6	—	—	—	—	—	Not Occupied	5 - 6	—	—	—	—	—
7	0.5	BN/ GN	3568	I	—	Passive Entry Rear Closure Antenna Signal Hi	7	0.5	BN/ GN	3568	II	—
8	0.75	BK/ WH	2264	I	—	120 VAC Phase A 2	8	0.75	BK/ WH	2264	II	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	RD/ YE	2340	I	—	Battery Positive Voltage	10	—	—	—	—	—

X138 Body Harness to Chassis Harness (Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	11	0.5	GN	5060	II	—
12	0.35	BK	6974	I	—	Camera Low Reference	12	0.5	BU	6974	II	—
13	0.35	GY/ YE	6972	I	—	Camera Signal 2 +	13	0.5	GY/ YE	6972	II	—
14	0.75	RD/ WH	2265	I	—	120 VAC Phase B 2	14	0.75	RD/ WH	2265	II	—
15	0.35	WH/ BU	5986	I	—	Serial Data Communication Enable	15	0.5	WH/ BU	5986	II	—
16	1	WH/ VT	1430	I	—	Exterior Courtesy Lamp Control	16	0.5	WH/ VT	1430	II	—
17	0.5	GN/ GY	3569	I	—	Passive Entry Rear Closure Antenna Signal Lo	17	0.5	GN/ GY	3569	II	—
18	0.35	BN	2257	I	—	Drain Wire	18	0.5	BN	2257	II	—
19	0.5	BU/ GN	1304	I	—	High Speed GMLAN Serial Data (+)9	19	0.5	BU/ GN	1304	II	—
20	0.5	WH/ GN	1305	I	—	High Speed GMLAN Serial Data (-)9	20	0.5	WH/ GN	1305	II	—

X140 Chassis Harness to Body Harness (Crew Cab)



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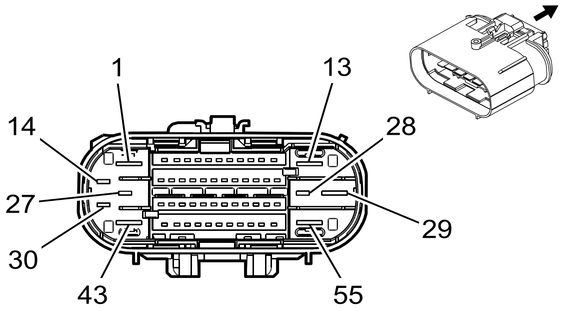

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Connector Part Information

Harness Type: Chassis
OEM Connector: 35016652
Service Connector: 19371185
Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 33357991
Service Connector: 19371183
Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X140 Chassis Harness to Body Harness (Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	5	GN/VT	1988	I	—	Park Brake Motor Apply Right Rear Control	1	2.5	GN/VT	1988	II	—
2	1	BN/GN	19	I	—	Right Rear Stop/Turn Lamp Control	2	1	BN/GN	19	II	—
3	0.5	GY/YE	7128	I	—	Wheel Speed Sensor Control Right Rear	3	0.5	GY/YE	7128	II	—
4	0.5	VT	882	I	—	Wheel Speed Sensor Signal Right Rear	4	0.5	VT	882	II	—
5	0.5	GY/YE	1760	I	—	Left Side Object Detection LED Control	5	0.35	GY/YE	1760	II	—
6	0.5	GY/WH	7064	I	—	Wheel Speed Sensor Control Left Front	6	0.5	GY/WH	7064	II	—

X140 Chassis Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	GY	830	I	—	Wheel Speed Sensor Signal Left Front	7	0.5	GY	830	II	—
8	0.5	GY/ BN	7065	I	—	Wheel Speed Sensor Control Right Front	8	0.5	GY/ BN	7065	II	—
9	0.5	YE	872	I	—	Wheel Speed Sensor Signal Right Front	9	0.5	YE	872	II	—
10	0.5	GY/ BK	7127	I	—	Wheel Speed Sensor Control Left Rear	10	0.5	GY/ BK	7127	II	—
11	0.5	BU	884	I	—	Wheel Speed Sensor Signal Left Rear	11	0.5	BU	884	II	—
12	1	YE/ BU	18	I	—	Left Rear Stop/Turn Lamp Control	12	1	YE/ BU	18	II	—
13	5	WH	2001	I	—	Park Brake Motor Apply Left Rear Control	13	2.5	WH	2001	II	—
14	2.5	RD/ VT	1242	I	—	Battery Positive Voltage	14	2	RD/ VT	1242	II	—
15	0.5	BN/ BK	7726	I	—	Minor Endgate Motor Return	15	0.5	BN/ BK	7726	II	—
16	0.5	GY	7292	I	—	Major Endgate Release Switch Signal Exterior	16	0.35	GY	7292	II	—
17	0.5	VT	7725	I	—	Minor Endgate Motor Supply Voltage	17	0.5	VT	7725	II	—
18	0.5	GN/ YE	6846	I	—	Rear License Lamp Control	18	0.35	GN/ YE	6846	II	—
19	0.5	YE/ BK	2224	I	—	Trailer Brake Enable Signal	19	0.5	YE/ BK	2224	II	—
20	0.5	GN/ YE	1616	I	—	Brake Lining Wear Sensor Signal Rear	20	0.5	GN/ YE	1616	II	—
21	0.5	GN	1299	I	—	Major Endgate Motor Supply Voltage	21	0.5	GN	1299	II	—

X140 Chassis Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
22	—	—	—	—	—	Accessory Wakeup Serial Data	22	0.35	VT/ YE	5985	II	—
23	0.5	VT/ GN	439	I	—	Run/Crank Ignition 1 Voltage	23	0.5	VT/ GN	439	II	—
24	0.5	YE	7294	I	—	Minor Endgate Release Switch Discrete Signal Exterior	24	0.35	YE	7294	II	—
25	0.5	BN/ WH	2374	I	—	Object Sensor Control	25	0.5	BN/ WH	2374	II	—
26	0.5	YE/ BU	2376	I	—	Left Rear Middle Object Sensor Signal	26	0.5	YE/ BU	2376	II	—
27	—	—	—	—	—	Ground	27	2.5	BK	150	II	—
28	2.5	RD/ GY	7040	I	—	Battery Positive Voltage	28	2.5	RD/ GY	7040	II	—
29	5	GY/ BK	4369	I	—	Park Brake Motor Low Reference Left Rear	29	2.5	GY/ BK	4369	II	—
30	2.5	BU	47	I	—	Trailer Auxiliary Control	30	2	BU	47	II	—
31	0.5	GY	1198	I	—	Endgate Release Switch Analog Signal Interior	31	0.35	GY	1198	II	—
32	0.5	YE/ BK	7730	I	—	Major Endgate Motor Return	32	0.5	YE/ BK	7730	II	—
33	0.5	WH	1612	I	—	Brake Lining Wear Sensor Signal Left Front	33	0.5	WH	1612	II	—
34	0.5	GY/ BU	7762	I	—	Cargo Bed Lamp Control	34	0.5	GY/ BU	7762	II	—
35	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	35	0.5	BU	2500	II	—
36	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	36	0.5	WH	2501	II	—
37	0.5	YE/ BU	7295	I	—	Left Minor Endgate Ajar Signal	37	0.35	YE/ BU	7295	II	—

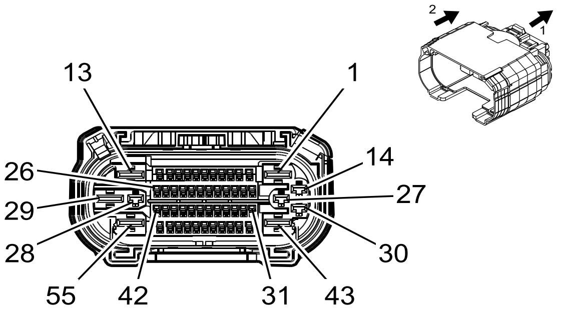
X140 Chassis Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
38	0.5	GN/ BU	2733	I	—	Local Interconnect Network Bus 33	38	0.35	GN/ BU	2733	II	—
39	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	39	0.5	WH	6106	II	—
40	0.5	YE/ BK	5356	I	—	Left Tail Lamp Outage Detection Signal	40	0.35	YE/ BK	5356	II	—
41	0.5	BU/ YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	41	0.5	BU/ YE	6105	II	—
42	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	42	0.5	WH	6106	II	—
43	5	GY	4368	I	—	Park Brake Motor Low Reference Right Rear	43	2.5	GY	4368	II	—
44	0.5	GN/ BK	2738	I	—	— Virtual Key Module Local Interconnect Network 1	44	1 0.5	BK GN/ BK	9003 2738	II II	— BOP
45	0.5	BK/ GY	2379	I	—	Object Sensor Low Reference	45	0.5	BK/ GY	2379	II	—
46	0.5	YE/ WH	2377	I	—	Right Rear Middle Object Sensor Signal	46	0.5	YE/ WH	2377	II	—
47	0.5	YE/ VT	2378	I	—	Right Rear Corner Object Sensor Signal	47	0.5	YE/ VT	2378	II	—
48	0.5	GY	1761	I	—	Right Side Object Detection LED Control	48	0.35	GY	1761	II	—
49	0.5	BN	7754	I	—	AC Power Outlet Enable	49	0.5	BN	7754	II	—
50	0.5	VT/ YE	5357	I	—	Right Tail Lamp Outage Detection Signal	50	0.35	VT/ YE	5357	II	—
51	0.5	WH/ BN	7296	I	—	Right Minor Endgate Ajar Signal	51	0.35	WH/ BN	7296	II	—

X140 Chassis Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
52	0.5	YE	2375	I	—	Left Rear Corner Object Sensor Signal	52	0.5	YE	2375	II	—
53	0.5	BU/ YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	53	0.5	BU/ YE	6105	II	—
54	1 1	WH/ BK BK	2223 9003	I I	— —	Trailer Brake Control Signal —	54	1	WH/ BK	2223	II	—
55	—	—	—	—	—	Battery Positive Voltage	55	4	RD/ YE	442	II	—

X140 Chassis Harness to Body Harness (Extended Cab)



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Connector Part Information

Harness Type: Chassis
OEM Connector: 35016652
Service Connector: 19371185
Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 35205188
Service Connector: 84727364
Description: 55-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	19371240	J-35616-32 (OR)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IV	19371240	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X140 Chassis Harness to Body Harness (Extended Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	5	GN/VT	1988	I	—	Park Brake Motor Apply Right Rear Control	1	2.5	GN/VT	1988	III	—
2	1	BN/GN	19	I	—	Right Rear Stop/Turn Lamp Control	2	1	BN/GN	19	II	—
3	0.5	GY/YE	7128	I	—	Wheel Speed Sensor Control Right Rear	3	0.5	GY/YE	7128	II	—
4	0.5	VT	882	I	—	Wheel Speed Sensor Signal Right Rear	4	0.5	VT	882	II	—
5	0.5	GY/YE	1760	I	—	Left Side Object Detection LED Control	5	0.35	GY/YE	1760	II	—

X140 Chassis Harness to Body Harness (Extended Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	GY/ WH	7064	I	—	Wheel Speed Sensor Control Left Front	6	0.5	GY/ WH	7064	II	—
7	0.5	GY	830	I	—	Wheel Speed Sensor Signal Left Front	7	0.5	GY	830	II	—
8	0.5	GY/ BN	7065	I	—	Wheel Speed Sensor Control Right Front	8	0.5	GY/ BN	7065	II	—
9	0.5	YE	872	I	—	Wheel Speed Sensor Signal Right Front	9	0.5	YE	872	II	—
10	0.5	GY/ BK	7127	I	—	Wheel Speed Sensor Control Left Rear	10	0.5	GY/ BK	7127	II	—
11	0.5	BU	884	I	—	Wheel Speed Sensor Signal Left Rear	11	0.5	BU	884	II	—
12	1	YE/ BU	18	I	—	Left Rear Stop/Turn Lamp Control	12	1	YE/ BU	18	II	—
13	5	WH	2001	I	—	Park Brake Motor Apply Left Rear Control	13	2.5	WH	2001	III	—
14	2.5	RD/ VT	1242	I	—	Battery Positive Voltage	14	2	RD/ VT	1242	IV	—
15	0.5	BN/ BK	7726	I	—	Minor Endgate Motor Return	15	0.5	BN/ BK	7726	II	—
16	0.5	GY	7292	I	—	Major Endgate Release Switch Signal Exterior	16	0.35	GY	7292	II	—
17	0.5	VT	7725	I	—	Minor Endgate Motor Supply Voltage	17	0.5	VT	7725	II	—
18	0.5	GN/ YE	6846	I	—	Rear License Lamp Control	18	0.35	GN/ YE	6846	II	—
19	0.5	YE/ BK	2224	I	—	Trailer Brake Enable Signal	19	0.5	YE/ BK	2224	II	—
20	0.5	GN/ YE	1616	I	—	Brake Lining Wear Sensor Signal Rear	20	0.5	GN/ YE	1616	II	—

X140 Chassis Harness to Body Harness (Extended Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
21	0.5	GN	1299	I	—	Major Endgate Motor Supply Voltage	21	0.5	GN	1299	II	—
22	—	—	—	—	—	Accessory Wakeup Serial Data	22	0.35	VT/ YE	5985	II	—
23	0.5	VT/ GN	439	I	—	Run/Crank Ignition 1 Voltage	23	0.5	VT/ GN	439	II	—
24	0.5	YE	7294	I	—	Minor Endgate Release Switch Discrete Signal Exterior	24	0.35	YE	7294	II	—
25	0.5	BN/ WH	2374	I	—	Object Sensor Control	25	0.5	BN/ WH	2374	II	—
26	0.5	YE/ BU	2376	I	—	Left Rear Middle Object Sensor Signal	26	0.5	YE/ BU	2376	II	—
27	—	—	—	—	—	Ground	27	2.5	BK	150	IV	—
28	2.5	RD/ GY	7040	I	—	Battery Positive Voltage	28	2.5	RD/ GY	7040	IV	—
29	5	GY/ BK	4369	I	—	Park Brake Motor Low Reference Left Rear	29	2.5	GY/ BK	4369	III	—
30	2.5	BU	47	I	—	Trailer Auxiliary Control	30	2	BU	47	IV	—
31	0.5	GY	1198	I	—	Endgate Release Switch Analog Signal Interior	31	0.35	GY	1198	II	—
32	0.5	YE/ BK	7730	I	—	Major Endgate Motor Return	32	0.5	YE/ BK	7730	II	—
33	0.5	WH	1612	I	—	Brake Lining Wear Sensor Signal Left Front	33	0.5	WH	1612	II	—
34	0.5	GY/ BU	7762	I	—	Cargo Bed Lamp Control	34	0.5	GY/ BU	7762	II	—
35	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	35	0.5	BU	2500	II	—
36	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	36	0.5	WH	2501	II	—

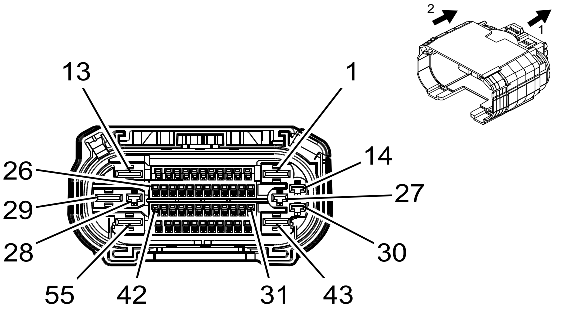
X140 Chassis Harness to Body Harness (Extended Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
37	0.5	YE/ BU	7295	I	—	Left Minor Endgate Ajar Signal	37	0.35	YE/ BU	7295	II	—
38	0.5	GN/ BU	2733	I	—	Local Interconnect Network Bus 33	38	0.35	GN/ BU	2733	II	—
39	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	39	0.5	WH	6106	II	—
40	0.5	YE/ BK	5356	I	—	Left Tail Lamp Outage Detection Signal	40	0.35	YE/ BK	5356	II	—
41	0.5	BU/ YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	41	0.5	BU/ YE	6105	II	—
42	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	42	0.5	WH	6106	II	—
43	5	GY	4368	I	—	Park Brake Motor Low Reference Right Rear	43	2.5	GY	4368	III	—
44	—	—	—	—	—	Not Occupied	44	—	—	—	—	—
45	0.5	BK/ GY	2379	I	—	Object Sensor Low Reference	45	0.5	BK/ GY	2379	II	—
46	0.5	YE/ WH	2377	I	—	Right Rear Middle Object Sensor Signal	46	0.5	YE/ WH	2377	II	—
47	0.5	YE/ VT	2378	I	—	Right Rear Corner Object Sensor Signal	47	0.5	YE/ VT	2378	II	—
48	0.5	GY	1761	I	—	Right Side Object Detection LED Control	48	0.35	GY	1761	II	—
49	0.5	BN	7754	I	—	AC Power Outlet Enable	49	0.5	BN	7754	II	—
50	0.5	VT/ YE	5357	I	—	Right Tail Lamp Outage Detection Signal	50	0.35	VT/ YE	5357	II	—
51	0.5	WH/ BN	7296	I	—	Right Minor Endgate Ajar Signal	51	0.35	WH/ BN	7296	II	—

X140 Chassis Harness to Body Harness (Extended Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
52	0.5	YE	2375	I	—	Left Rear Corner Object Sensor Signal	52	0.5	YE	2375	II	—
53	0.5	BU/ YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	53	0.5	BU/ YE	6105	II	—
54	1	BK	9003	I	—	—	54	1	WH/ BK	2223	II	—
55	—	—	—	—	—	Battery Positive Voltage	55	4	RD/ YE	442	III	—

X140 Chassis Harness to Body Harness (Regular Cab)



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Connector Part Information

Harness Type: Chassis
OEM Connector: 35016652
Service Connector: 19371185
Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 35205188
Service Connector: 84727364
Description: 55-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19333088	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19371240	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	19371240	J-35616-16 (LT GN)	J-38125-559	Not Available	Not Available	Not Available	Not Available
IV	84634921	J-35616-42 (RD)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
V	19329756	J-35616-32 (OR)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	19368968	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VII	19370818	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VIII	84616651	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X140 Chassis Harness to Body Harness (Regular Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	5	GN/VT	1988	IV	—	Park Brake Motor Apply Right Rear Control	1	2.5	GN/VT	1988	V	—
2	1	BN/GN	19	II	—	Right Rear Stop/Turn Lamp Control	2	1	BN/GN	19	VII	—
3	0.5	GY/YE	7128	III	—	Wheel Speed Sensor Control Right Rear	3	0.5	GY/YE	7128	VIII	—

X140 Chassis Harness to Body Harness (Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
4	0.5	VT	882	III	—	Wheel Speed Sensor Signal Right Rear	4	0.5	VT	882	VIII	—
5	0.5	GY/ YE	1760	III	—	Left Side Object Detection LED Control	5	0.35	GY/ YE	1760	VIII	—
6	0.5	GY/ WH	7064	III	—	Wheel Speed Sensor Control Left Front	6	0.5	GY/ WH	7064	VIII	—
7	0.5	GY	830	III	—	Wheel Speed Sensor Signal Left Front	7	0.5	GY	830	VIII	—
8	0.5	GY/ BN	7065	III	—	Wheel Speed Sensor Control Right Front	8	0.5	GY/ BN	7065	VIII	—
9	0.5	YE	872	III	—	Wheel Speed Sensor Signal Right Front	9	0.5	YE	872	VIII	—
10	0.5	GY/ BK	7127	III	—	Wheel Speed Sensor Control Left Rear	10	0.5	GY/ BK	7127	VIII	—
11	0.5	BU	884	III	—	Wheel Speed Sensor Signal Left Rear	11	0.5	BU	884	VIII	—
12	1	YE/ BU	18	II	—	Left Rear Stop/Turn Lamp Control	12	1	YE/ BU	18	VII	—
13	5	WH	2001	IV	—	Park Brake Motor Apply Left Rear Control	13	2.5	WH	2001	V	—
14	2.5	RD/ VT	1242	I	—	Battery Positive Voltage	14	2	RD/ VT	1242	VI	—
15	0.5	BN/ BK	7726	III	—	Minor Endgate Motor Return	15	0.5	BN/ BK	7726	VIII	—
16	0.5	GY	7292	III	—	Major Endgate Release Switch Signal Exterior	16	0.35	GY	7292	VIII	—
17	0.5	VT	7725	III	—	Minor Endgate Motor Supply Voltage	17	0.5	VT	7725	VIII	—

X140 Chassis Harness to Body Harness (Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
18	0.5	GN/ YE	6846	III	—	Rear License Lamp Control	18	0.35	GN/ YE	6846	VIII	—
19	0.5	YE/ BK	2224	III	—	Trailer Brake Enable Signal	19	0.5	YE/ BK	2224	VIII	—
20	0.5	GN/ YE	1616	III	—	Brake Lining Wear Sensor Signal Rear	20	0.5	GN/ YE	1616	VIII	—
21	0.5	GN	1299	III	—	Major Endgate Motor Supply Voltage	21	0.5	GN	1299	VIII	—
22	—	—	—	—	—	Accessory Wakeup Serial Data	22	0.35	VT/ YE	5985	VIII	—
23	0.5	VT/ GN	439	III	—	Run/Crank Ignition 1 Voltage	23	0.5	VT/ GN	439	VIII	—
24	0.5	YE	7294	III	—	Minor Endgate Release Switch Discrete Signal Exterior	24	0.35	YE	7294	VIII	—
25	0.5	BN/ WH	2374	III	—	Object Sensor Control	25	0.5	BN/ WH	2374	VIII	—
26	0.5	YE/ BU	2376	III	—	Left Rear Middle Object Sensor Signal	26	0.5	YE/ BU	2376	VIII	—
27	—	—	—	—	—	Ground	27	2.5	BK	150	VI	—
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
29	5	GY/ BK	4369	IV	—	Park Brake Motor Low Reference Left Rear	29	2.5	GY/ BK	4369	V	—
30	2.5	BU	47	I	—	Trailer Auxiliary Control	30	2	BU	47	VI	—
31	0.5	GY	1198	III	—	Endgate Release Switch Analog Signal Interior	31	—	—	—	—	—
32	0.5	YE/ BK	7730	III	—	Major Endgate Motor Return	32	0.5	YE/ BK	7730	VIII	—
33	0.5	WH	1612	III	—	Brake Lining Wear Sensor Signal Left Front	33	0.5	WH	1612	VIII	—
34	0.5	GY/ BU	7762	III	—	Cargo Bed Lamp Control	34	0.5	GY/ BU	7762	VIII	—

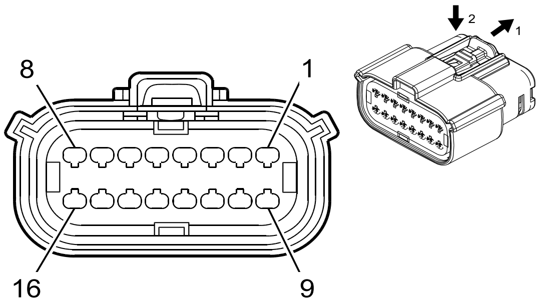
X140 Chassis Harness to Body Harness (Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
35	0.5	BU	2500	III	—	High Speed GMLAN Serial Data (+) 1	35	0.5	BU	2500	VIII	—
36	0.5	WH	2501	III	—	High Speed GMLAN Serial Data (-) 1	36	0.5	WH	2501	VIII	—
37	0.5	YE/ BU	7295	III	—	Left Minor Endgate Ajar Signal	37	0.35	YE/ BU	7295	VIII	—
38	0.5	GN/ BU	2733	III	—	Local Interconnect Network Bus 33	38	0.35	GN/ BU	2733	VIII	—
39	0.5	WH	6106	III	—	High Speed GMLAN Serial Data (-) 2	39	0.5	WH	6106	VIII	—
40	0.5	YE/ BK	5356	III	—	Left Tail Lamp Outage Detection Signal	40	0.35	YE/ BK	5356	VIII	—
41	0.5	BU/ YE	6105	III	—	High Speed GMLAN Serial Data (+) 2	41	0.5	BU/ YE	6105	VIII	—
42	0.5	WH	6106	III	—	High Speed GMLAN Serial Data (-) 2	42	0.5	WH	6106	VIII	—
43	5	GY	4368	IV	—	Park Brake Motor Low Reference Right Rear	43	2.5	GY	4368	V	—
44	—	—	—	—	—	Not Occupied	44	—	—	—	—	—
45	0.5	BK/ GY	2379	III	—	Object Sensor Low Reference	45	0.5	BK/ GY	2379	VIII	—
46	0.5	YE/ WH	2377	III	—	Right Rear Middle Object Sensor Signal	46	0.5	YE/ WH	2377	VIII	—
47	0.5	YE/ VT	2378	III	—	Right Rear Corner Object Sensor Signal	47	0.5	YE/ VT	2378	VIII	—
48	0.5	GY	1761	III	—	Right Side Object Detection LED Control	48	0.35	GY	1761	VIII	—
49	0.5	BN	7754	III	—	AC Power Outlet Enable	49	0.5	BN	7754	VIII	—

X140 Chassis Harness to Body Harness (Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
50	0.5	VT/ YE	5357	III	—	Right Tail Lamp Outage Detection Signal	50	0.35	VT/ YE	5357	VIII	—
51	0.5	WH/ BN	7296	III	—	Right Minor Endgate Ajar Signal	51	0.35	WH/ BN	7296	VIII	—
52	0.5	YE	2375	III	—	Left Rear Corner Object Sensor Signal	52	0.5	YE	2375	VIII	—
53	0.5	BU/ YE	6105	III	—	High Speed GMLAN Serial Data (+) 2	53	0.5	BU/ YE	6105	VIII	—
54	1 1	WH/ BK BK	2223 9003	II II	— —	Trailer Brake Control Signal —	54	1 1	WH/ BK BK	2223 9003	VII VII	— —
55	—	—	—	—	—	Battery Positive Voltage	55	4	RD/ YE	442	V	—

X160 Engine Harness to Fuel Injector Harness (L3B)



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4574233

Connector Part Information

Harness Type: Engine
OEM Connector: 33386201
Service Connector: 19354087
Description: 16-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578813	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

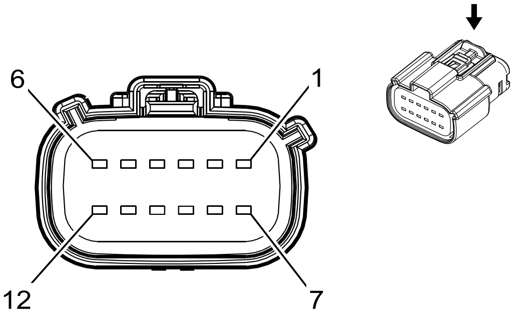
X160 Engine Harness to Fuel Injector Harness (L3B)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT/GY	496	I	—	Knock Sensor Signal 1	1	0.5	VT/GY	496	II	—
2	0.75	BN	4801	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	2	0.75	BN	4801	II	—
3	0.5	WH/RD	480	I	—	Engine Control Sensors 5 Volt Reference (2)	3	0.5	WH/RD	480	II	—
4	0.75	GY/BU	4804	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	4	0.75	GY/BU	4804	II	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.75	GN	4803	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	6	0.75	—	4803	II	—

X160 Engine Harness to Fuel Injector Harness (L3B) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.75	BU	4802	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	7	0.75	BU	4802	II	—
8	0.5	WH/ GY	1876	I	—	Knock Sensor Signal 2	8	0.5	WH/ GY	1876	II	—
9	0.5	BK/ YE	1716	I	—	Knock Sensor Low Reference 1	9	0.5	BK/ YE	1716	II	—
10	0.75	BN/ WH	4901	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	10	0.75	BN/ WH	4901	II	—
11	0.5	BU/ WH	2918	I	—	Fuel Rail Pressure Sensor Signal	11	0.5	BU/ WH	2918	II	—
12	0.5	BK/ GN	580	I	—	Engine Control Sensors Low Reference (2)	12	0.5	BK	580	II	—
13	0.75	BU/ WH	4904	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	13	0.75	BU/ WH	4904	II	—
14	0.75	GN/ GY	4903	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	14	0.75	—	4903	II	—
15	0.75	BU/ GY	4902	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	15	0.75	BU/ GY	4902	II	—
16	0.5	BK/ GY	2303	I	—	Knock Sensor Low Reference 2	16	0.5	BK/ GY	2303	II	—

X160 Engine Harness to Fuel Injector Harness (LM2)



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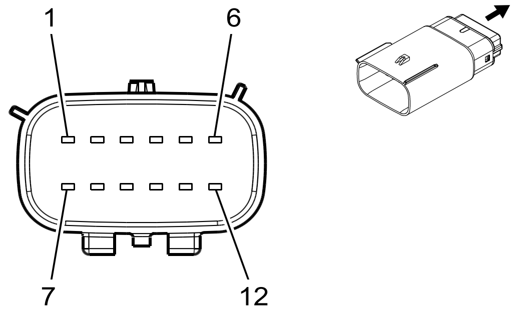


5187933

Connector Part Information

Harness Type: Engine
OEM Connector: 33221171
Service Connector: 19333239
Description: 12-Way F 150 MX Series, Sealed (D-GY)

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: 33482-6261
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M 150 MX Series, Sealed (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19368973	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

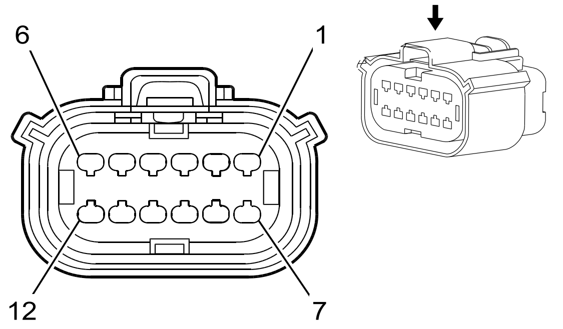
X160 Engine Harness to Fuel Injector Harness (LM2)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	BN/WH	4901	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	1	1.5	BN/WH	4901	II	—
2	1.5	BN	4801	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	2	1.5	BN	4801	II	—
3	1.5	BU/GY	4902	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	3	1.5	BU/GY	4902	II	—
4	1.5	BU	4802	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	4	1.5	BU	4802	II	—
5	1.5	GN/GY	4903	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	5	1.5	GN/GY	4903	II	—

X160 Engine Harness to Fuel Injector Harness (LM2) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	1.5	GN	4803	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	6	1.5	GN	4803	II	—
7	1.5	BU/WH	4904	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	7	1.5	BU/WH	4904	II	—
8	1.5	GY/BU	4804	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	8	1.5	GY/BU	4804	II	—
9	1.5	GN/WH	4905	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	9	1.5	GN/WH	4905	II	—
10	1.5	WH/GN	4805	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	10	1.5	WH/GN	4805	II	—
11	1.5	VT/GY	4906	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	11	1.5	VT/GY	4906	II	—
12	1.5	VT/GN	4806	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	12	1.5	VT/GN	4806	II	—

X160 Engine Harness to Fuel Injector Harness (LV3)



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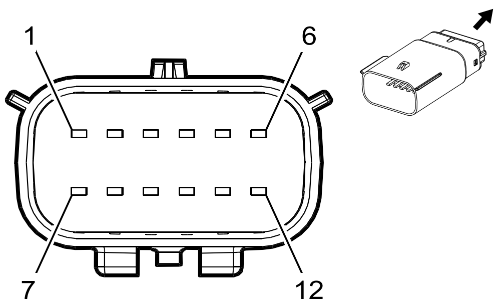


2687960

Connector Part Information

Harness Type: Engine
OEM Connector: 13609715
Service Connector: 19178148
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578813	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	13578813	J-35616-2A (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

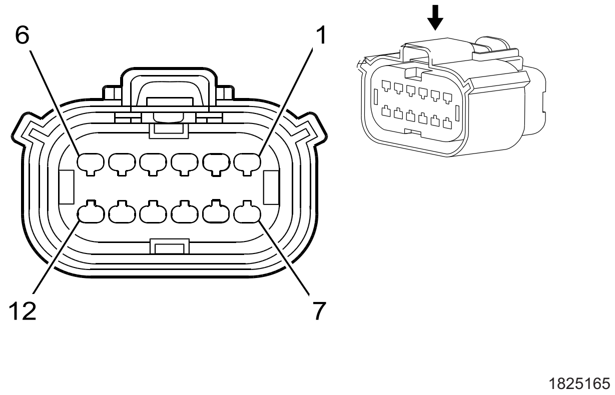
X160 Engine Harness to Fuel Injector Harness (LV3)

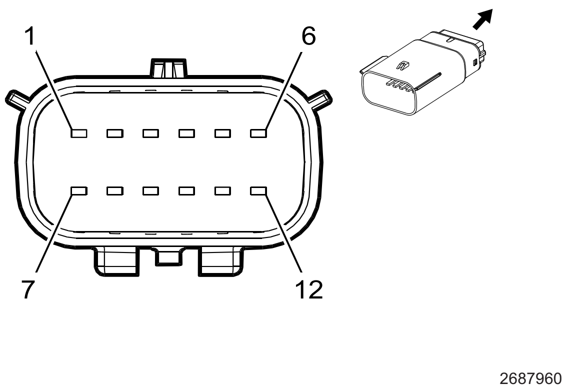
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BN/WH	4901	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	2	0.75	BN/WH	4901	III	—
3	0.75	GN/GY	4903	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	3	0.75	—	4903	III	—
4	0.75	GN/WH	4905	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	4	0.75	—	4905	III	—
5	0.75	BN	4801	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	5	0.75	BN	4801	III	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—

X160 Engine Harness to Fuel Injector Harness (LV3) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.75	GN	4803	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	8	0.75	—	4803	III	—
9	0.75	WH/ GN	4805	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	9	0.75	WH	4805	III	—
10	0.5	WH/ RD	480	II	—	Engine Control Sensors 5 Volt Reference (2)	10	0.5	WH/ RD	480	III	—
11	0.5	BU/ WH	2918	II	—	Fuel Rail Pressure Sensor Signal	11	0.5	BU/ WH	2918	III	—
12	0.5	BK/ YE	548	II	—	Engine Control Sensors Low Reference (1)	12	0.5	BK/ YE	548	III	—

X161 Engine Harness to Fuel Injector - Even Harness (LV3)





Connector Part Information

Harness Type: Engine
OEM Connector: 13863397
Service Connector: 19329931
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector - Even
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578813	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

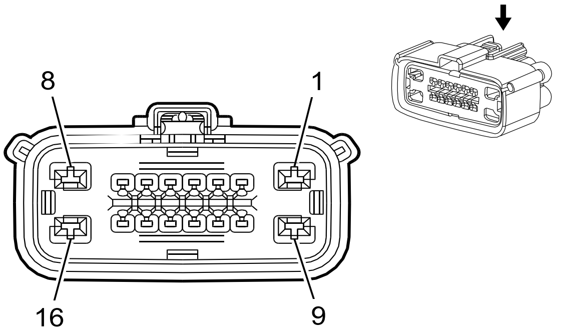
X161 Engine Harness to Fuel Injector - Even Harness (LV3)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BU/GY	4902	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	2	0.75	BU/GY	4902	II	—
3	0.75	BU/WH	4904	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	3	0.75	BU/WH	4904	II	—
4	0.75	VT/GY	4906	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	4	0.75	VT/GY	4906	II	—
5	0.75	BU	4802	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	5	0.75	BU	4802	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—

X161 Engine Harness to Fuel Injector - Even Harness (LV3) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.75	GY/ BU	4804	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	8	0.75	GY/ BU	4804	II	—
9	0.75	VT/ GN	4806	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	9	0.75	VT	4806	II	—
10	0.75	VT/ BK	7300	I	—	High Pressure Fuel Pump Actuator Low - Control	10	0.75	VT/ BK	7300	II	—
11	0.75	YE	7301	I	—	High Pressure Fuel Pump Actuator High - Control	11	0.75	YE	7301	II	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—

X171 Engine Harness to Chassis Harness



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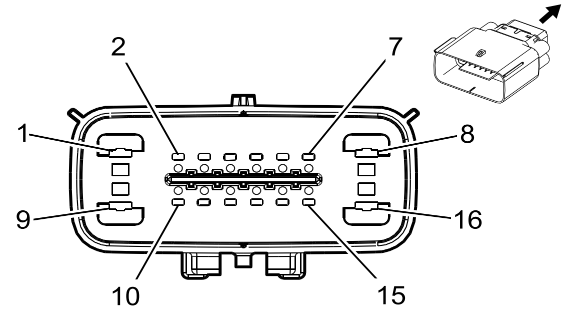


2373686

Connector Part Information

Harness Type: Engine
OEM Connector: 33218250
Service Connector: 19352906
Description: 16-Way F 1.5, 2.8 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33129084
Service Connector: 19331031
Description: 16-Way M 1.5, 2.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13576376	J-35616-35 (VT)	J-38125-215A	1326030-6	Lear 17	C	A
II	13576376	J-35616-35 (VT)	J-38125-215A	1326030-8	Lear 17	A	4
III	13576377	J-35616-35 (VT)	J-38125-215A	1326030-8	Lear 17	4	D
IV	13576377	J-35616-35 (VT)	J-38125-215A	1326030-8	Lear 17	A	4
V	19300432	J-35616-2A (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	19300625	J-35616-2A (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VII	19119395	J-35616-3 (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VIII	19329833	J-35616-5 (PU)	J-38125-215A	1326030-6	Lear 17	E	2
IX	19332835	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X171 Engine Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	VT/GN	355	III	—	Fuel Filter Heater Voltage	1	2.5	VT/GN	355	IX	—
2	0.5 0.5	VT/YE VT/YE	5985 5985	VI V	— —	Accessory Wakeup Serial Data Accessory Wakeup Serial Data	2	0.5	VT/YE	5985	VII	—

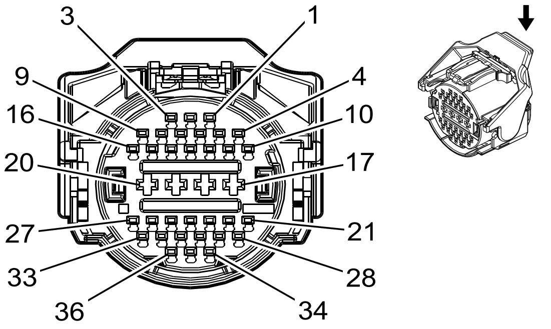
X171 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5 0.5	BU/BN BU/BN	4498 4498	VI V	— —	High Speed GMLAN Serial Data (+) 7 High Speed GMLAN Serial Data (+) 7	3	0.5	BU/BN	4498	VII	—
4	0.5	BU/WH	7446	V	—	Fuel Line Pressure Sensor Signal	4	0.5	BU/WH	7446	VII	—
5	0.5	BK/GN	580	V	—	Engine Control Sensors Low Reference (2)	5	0.5	BK/YE	7447	VII	—
6	0.5	WH	1579	V	—	Fuel Temperature/Composition Signal	6	0.5	WH	1579	VII	—
7	0.5 0.5	VT/GN VT/GN	4320 4320	VI V	— —	Powertrain Sensor Bus Enable Powertrain Sensor Bus Enable	7	0.5	VT/GN	4320	VII	—
8	0.5 1	BK/WH BK/WH	451 451	II I	— —	Signal Ground Signal Ground	8	0.5	BK/WH	451	VIII	—
9	1.5	VT/BU	3674	IV	—	NOx Sensor 1 Control	9	1.5	VT/BU	3674	IX	—
10	0.5	VT/BU	5294	V	—	Powertrain Main Relay Fused Supply 5	10	0.5	VT/BU	5294	VII	—
11	0.5 0.5	WH WH	4499 4499	VI V	— —	High Speed GMLAN Serial Data (-) 7 High Speed GMLAN Serial Data (-) 7	11	0.5	WH	4499	VII	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—
13	0.5	BU/RD	460	V	—	Engine Control Sensors 5 Volt Reference (1)	13	0.5	BN/RD	7445	VII	—
14	—	—	—	—	—	Not Occupied	14	—	—	—	—	—

X171 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
15	0.5 0.5 0.75	GN/ GY GN/ GY GN/ GY	465 465 465	VI V V	— — —	Fuel Pump Primary Relay Control Fuel Pump Primary Relay Control Fuel Pump Primary Relay Control	15	0.5	GN/ GY	465	VII	—
16	2.5	BU	3921	III	—	DEF Heater Supply 1	16	2.5	BU	3921	IX	—

X175 Engine Harness to Transmission Harness X1 (MQE)



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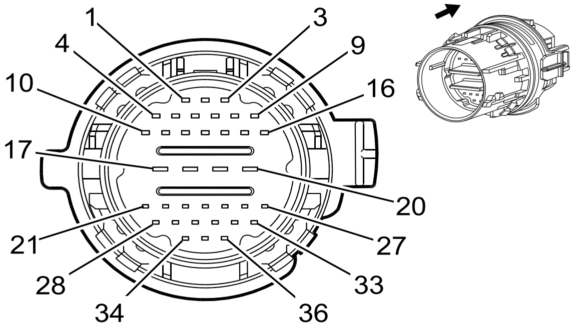


3977661

Connector Part Information

Harness Type: Engine
OEM Connector: 15532799
Service Connector: 19332681
Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Transmission
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 36-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19119772	J-35616-35 (VT)	J-38125-215A	1241388-1	Lear 17	E	C
II	19300445	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X175 Engine Harness to Transmission Harness X1 (MQE)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN/WH	6380	II	—	TCC On/Off Solenoid A Control	1	0.5	—	6380	III	—
2	0.5	GN/GY	6387	II	—	Transmission High Side Driver 1 Signal Driver	2	0.5	—	6387	III	—
3	0.5	VT/WH	422	II	—	Torque Converter Clutch Solenoid Control	3	0.5	VT/WH	422	III	—
4	0.5	GN/WH	1530	II	—	Transmission Mainline Pressure Solenoid Control	4	0.5	—	1530	III	—
5	0.5	BN	6400	II	—	Clutch A Control	5	0.5	BN	6400	III	—
6	0.5	BU	6401	II	—	Clutch B Control	6	0.5	BU	6401	III	—

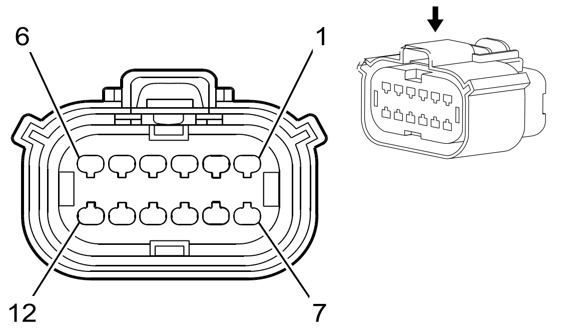
X175 Engine Harness to Transmission Harness X1 (MQE) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	YE/ BN	6210	II	—	TCC On/Off Solenoid B Control	7	0.5	YE/ BN	6210	III	—
8	0.5	WH/ GY	4578	II	—	Surge Accumulator Solenoid Low Side Control	8	0.5	WH/ GY	4578	III	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	GY	6402	II	—	Clutch C Control	10	0.5	GY	6402	III	—
11	0.5	BK/ BN	586	II	—	Transmission Oil Temperature Sensor Low Reference	11	0.5	BK/ BN	586	III	—
12	0.5	BN/ WH	585	II	—	Transmission Oil Temperature Sensor Signal	12	0.5	BN/ WH	585	III	—
13	0.5	WH	4508	II	—	Transmission Clutch G Control	13	0.5	WH	4508	III	—
14	0.5	WH/ BU	4507	II	—	Transmission Clutch H Control	14	0.5	WH/ BU	4507	III	—
15 - 17	—	—	—	—	—	Not Occupied	15 - 17	—	—	—	—	—
18	0.5	GN/ GY	6387	I	—	Transmission High Side Driver 1 Signal Driver	18	0.5	—	6387	III	—
19	0.5	GY/ BN	6388	I	—	Transmission High Side Driver 2 Signal	19	0.5	GY/ BN	6388	III	—
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
21	0.5	GN/ YE	3337	II	—	Transmission Internal Mode Switch Mode Control A	21	0.5	—	3337	III	—
22	0.5	BU/ WH	3338	II	—	Transmission Internal Mode Switch Mode Control B	22	0.5	BU/ WH	3338	III	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	GY/ BU	6358	II	—	Output Speed Signal	24	0.5	GY/ BU	6358	III	—
25	0.5	YE/ GN	4170	II	—	Transmission Position Sensor B 9V Reference	25	0.5	YE	4170	III	—

X175 Engine Harness to Transmission Harness X1 (MQE) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
26	0.5 0.5	GN/YE BN/WH	6254 6254	II II	— MQE	Transmission Input Speed Sensor Signal Transmission Input Speed Sensor Signal	26	0.5 0.5	GN/YE BN/WH	6254 6254	III III	— MQE
27	0.5	YE/BU	4171	II	—	Transmission Position Sensor A 9V Reference	27	0.5	YE/BU	4171	III	—
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
29	0.5	WH/RD	480	II	—	Engine Control Sensors 5 Volt Reference (2)	29	0.5	WH/RD	480	III	—
30	0.5	BK/GY	626	II	—	Engine Control Sensors Low Reference (3)	30	0.5	BK/GY	626	III	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	0.5	GN/VT	4510	II	—	Transmission Intermediate Speed Signal	32	0.5	—	4510	III	—
33 - 36	—	—	—	—	—	Not Occupied	33 - 36	—	—	—	—	—

X182 Chassis Harness to Power Steering Jumper Harness (Z45)



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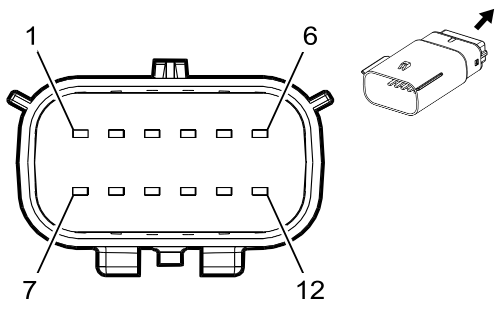


2687960

Connector Part Information

Harness Type: Chassis
OEM Connector: 13609715
Service Connector: 19178148
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Power Steering Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300432	J-35616-2A (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

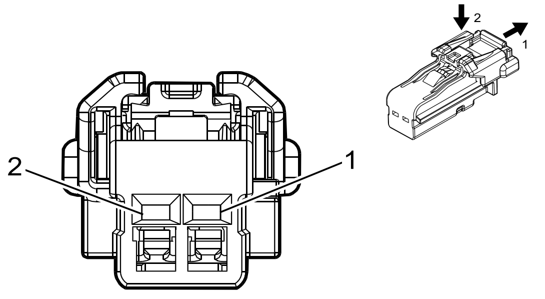
X182 Chassis Harness to Power Steering Jumper Harness (Z45)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	2	0.5	BU	2500	II	—
3	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	3	0.5	WH	2501	II	—
4	0.5	BU/YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	4	0.5	BU/YE	6105	II	—
5	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	5	0.5	WH	6106	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	0.5	WH/BU	5986	I	—	Serial Data Communication Enable	8	0.5	WH/BU	5986	II	—

X182 Chassis Harness to Power Steering Jumper Harness (Z45) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	9	0.5	BU	2500	II	—
10	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	10	0.5	WH	2501	II	—
11	0.5	BU/ YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	11	0.5	BU/ YE	6105	II	—
12	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	12	0.5	WH	6106	II	—

X211 Instrument Panel Harness to Body Harness (UQA)



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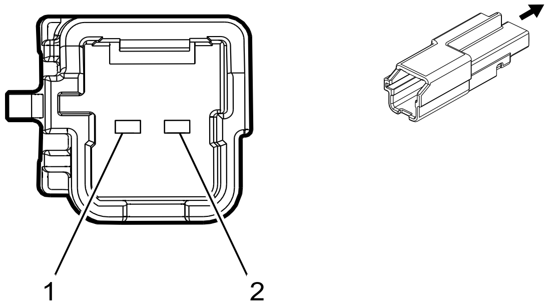


4116496

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35026312
Service Connector: 19352066
Description: 2-Way F 1.2 Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 33189233
Service Connector: 19332376
Description: 2-Way M 1.2 Series (BK)

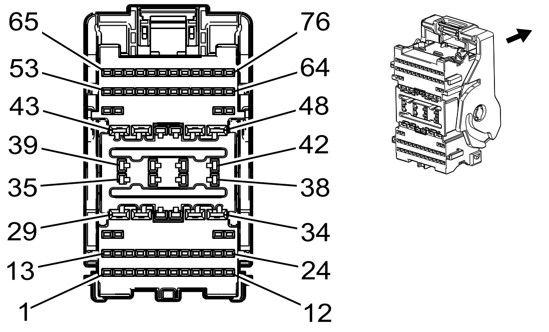
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X211 Instrument Panel Harness to Body Harness (UQA)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BN/ BK	7214	I	—	Ethernet Bus 6 (-) Ethernet Bus 6 (-)	1	0.35	BN/ BK	7214	II	—
2	0.35	GY/ BK	7215	I	—	Ethernet Bus 6 (+) Ethernet Bus 6 (+)	2	0.35	GY/ BK	7215	II	—

X225 Instrument Panel Harness to Body Harness



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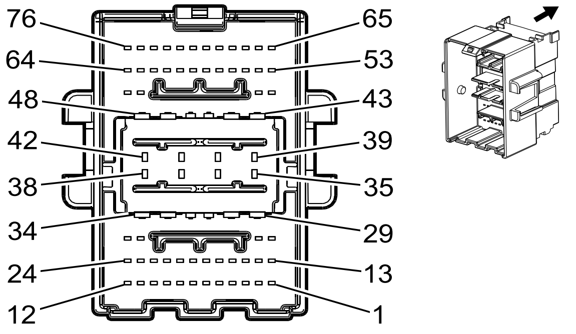


3960526

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35142991
Service Connector: 84581287
Description: 76-Way F 1.2, 1.5, 2.8 YESC Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 33303580
Service Connector: 19369989
Description: 76-Way M 1.2 MCON-CB, 1.5, 2.8 YESC Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575708	J-35616-2A (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	13578891	J-35616-2A (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	13578893	J-35616-4A (PU)	J-38125-215A	7116-4110-02	Yazaki 9	E	C
IV	13580025	J-35616-4A (PU)	J-38125-215A	7116-4111-02	Yazaki 9	E	A
V	13582232	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	19300649	J-35616-4A (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VII	19301752	J-35616-4A (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VIII	19301767	J-35616-2A (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IX	19333323	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
X	19367551	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
XI	19371240	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
XII	13575824	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
XIII	19352074	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
XIV	19352075	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
XV	19352417	J-35616-3 (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
XVI	19352418	J-35616-3 (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

Terminal Part Information (cont'd)

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
XVII	19354072	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
XVIII	19355729	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
XIX	19370818	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
XX	19371217	J-25616-64B (LT BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
XXI	84616651	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X225 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	0.35	BU/YE	5361	IX	—	Brake Apply Sensor Signal Brake Apply Sensor Signal	3	0.35 0.35	BU/YE BU/YE	5361 5361	XXI XIII	— —
4	0.35	BK/BN	5360	IX	—	Brake Apply Sensor Low Reference Brake Apply Sensor Low Reference	4	0.35 0.35	BK/BN BK/BN	5360 5360	XXI XIII	— —
5	0.35	WH	5359	IX	—	Brake Apply Sensor Control Brake Apply Sensor Control	5	0.35 0.35	WH WH	5359 5359	XIII XXI	— —
6	0.35	BK/GY	2204	IX	—	Enhanced Driver Mode 1 Switch Low Reference Enhanced Driver Mode 1 Switch Low Reference	6	0.35 0.35	BK/GY BK/GY	2204 2204	XXI XIII	— —
7	0.35	GY	4109	IX	—	Driver Mode Switch 5V Reference Driver Mode Switch 5V Reference	7	0.35 0.35	GY GY	4109 4109	XIII XXI	— —
8	0.35	WH/BN	2203	IX	—	Enhanced Driver Mode 2 Switch Signal Enhanced Driver Mode 2 Switch Signal	8	0.35 0.35	WH/BN WH/BN	2203 2203	XIII XXI	— —

X225 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.35	YE	6817	IX	—	LED Backlight Dimming Control LED Backlight Dimming Control	9	0.35 0.35	YE YE	6817 6817	XIII XXI	— —
10	0.35	GN	5060	IX	—	Low Speed GMLAN Serial Data Low Speed GMLAN Serial Data	10	0.35 0.35	GN GN	5060 5060	XIII XXI	— —
11	0.35	VT/GY	1630	IX	—	Steering Column Key Cylinder Lock Solenoid Control Steering Column Key Cylinder Lock Solenoid Control	11	0.35 0.35	VT/GY VT/GY	1630 1630	XIII XXI	— —
12	0.35	VT/BK	3	IX	—	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	12	0.35 0.35	VT/BK VT/BK	3 3	XXI XIII	— —
13	0.35	GN/BK	3558	IX	—	Passive Start Switch Signal 2 Passive Start Switch Signal 2	13	0.35 0.35	GN/BK GN/BK	3558 3558	XIII XXI	— —
14	0.35	VT/YE	4	IX	—	Accessory Ignition Voltage Accessory Ignition Voltage	14	0.35 0.35	VT/YE VT/YE	4 4	XIII XXI	— —
15	0.35	OG/VT	3021	V	—	Steering Wheel Module Stage 1 High Control Steering Wheel Module Stage 1 High Control	15	0.35 0.35	OG/VT OG/VT	3021 3021	XXI XX	— —
16	0.35	BN/OG	3020	V	—	Steering Wheel Module Stage 1 Low Control Steering Wheel Module Stage 1 Low Control	16	0.35 0.35	BN/OG BN/OG	3020 3020	XXI XX	— —

X225 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
17	0.35	OG/GN	3023	V	—	Steering Wheel Module Stage 2 High Control Steering Wheel Module Stage 2 High Control	17	0.35 0.35	OG/GN OG/GN	3023 3023	XX XXI	— —
18	0.35	WH/OG	3022	V	—	Steering Wheel Module Stage 2 Low Control Steering Wheel Module Stage 2 Low Control	18	0.35 0.35	WH/OG WH/OG	3022 3022	XX XXI	— —
19	0.35	GN/BU	2733	IX	—	Local Interconnect Network Bus 33 Local Interconnect Network Bus 33	19	0.35 0.35	GN/BU GN/BU	2733 2733	XIII XXI	— —
20	0.35	YE/WH	1690	IX	—	Automatic Day/Night Mirror Signal Automatic Day/Night Mirror Signal	20	0.35 0.35	YE/WH YE/WH	1690 1690	XXI XIII	— —
21	0.35	BK/YE	1691	IX	—	Automatic Day/Night Mirror Low Reference Automatic Day/Night Mirror Low Reference	21	0.35 0.35	BK/YE BK/YE	1691 1691	XIII XXI	— —
22	0.35	GN	4512	IX	—	Wireless Charging System Charge Indicator Control Wireless Charging System Charge Indicator Control	22	0.35 0.35	GN GN	4512 4512	XIII XXI	— —
23	0.35	GN/WH	4115	IX	—	Local Interconnect Network Serial Data Bus 15	23	0.35	GN/WH	4115	XIII	—

X225 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
24	0.35	BU/YE	6105	IX	—	High Speed GMLAN Serial Data (+) 2 High Speed GMLAN Serial Data (+) 2	24	0.5 0.5	BU/YE BU/YE	6105 6105	XXI XIII	— —
25	0.35	WH	6106	IX	—	High Speed GMLAN Serial Data (-) 2 High Speed GMLAN Serial Data (-) 2	25	0.5 0.5	WH WH	6106 6106	XIII XXI	— —
26	0.35	BN/WH	419	IX	—	Check Engine Indicator Control Check Engine Indicator Control	26	0.35 0.35	BN/WH BN/WH	419 419	XXI XIII	— —
27	0.35	GN/GY	3277	IX	—	Vehicle Anti-Theft System Immobilizer Low Reference Vehicle Anti-Theft System Immobilizer Low Reference	27	0.35 0.35	GN/GY GN/GY	3277 3277	XXI XIII	— —
28	0.35	WH/BU	5986	IX	—	Serial Data Communication Enable Serial Data Communication Enable	28	0.35 0.35	WH/BU WH/BU	5986 5986	XIII XXI	— —
29	—	—	—	—	—	—	29	0.5	YE/WH	9002	XII	—
30	0.35	YE/WH	816	III	—	Brake Transmission Shift Interlock Solenoid Control	30	0.35	YE/WH	816	XVII	—
31	0.35	WH	2501	II	—	High Speed GMLAN Serial Data (-) 1	31	0.5	WH	2501	XV	—
32	0.35	BU	2500	II	—	High Speed GMLAN Serial Data (+) 1	32	0.5	BU	2500	XV	—
33	0.75	BU/VT	1857	IV	—	Left Front Midrange Speaker Control (+)	33	0.75	BU/VT	1857	XVIII	—

X225 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
34	0.75	BU/ BN	1957	IV	—	Left Front Midrange Speaker (-) Low Reference	34	0.75	BU/ BN	1957	XVIII	—
35	0.5	WH/ BN	6815	VIII	—	Inadvertent Power Control	35	0.5	WH/ BN	6815	XV	—
36	0.35	GN/ WH	1932	II	—	Shift Select Switch Park Signal	36	0.35	GN/ WH	1932	XV	—
37 - 38	—	—	—	—	—	Not Occupied	37 - 38	—	—	—	—	—
39	0.35	BU/ GY	553	II	—	Shift Select Switch Performance Signal	39	0.35	BU/ GY	553	XV	—
40 - 41	—	—	—	—	—	Not Occupied	40 - 41	—	—	—	—	—
42	0.35	BU/ YE	6844	I	—	ABS/TCS Hill Descent Control Switch Signal	42	0.35	BU/ YE	6844	XV	—
43	—	—	—	—	—	—	43	0.5	YE/ WH	9001	XII	—
44	0.35	Bare	514	VI	—	Low Reference	44	0.35	Bare	514	XVII	—
45	0.75	BK	5683	I	—	120 V AC Phase A	45	0.75	BK	5683	XVI	—
46	0.75	RD	5684	I	—	120 V AC Phase B	46	0.75	RD	5684	XVI	—
47	0.75	BN/ BU	118	VII	—	Left Front Speaker Signal (-) 1	47	0.75	BN/ BU	118	XVIII	—
48	0.75	BU	201	VII	—	Left Front Speaker Control (+) 1	48	0.75	BU	201	XVIII	—
49	0.35	BU/ BN	7573	IX	—	Electric Variable Displacement Supply Electric Variable Displacement Supply	49	0.35 0.35	BU/ BN BU/ BN	7573 7573	XIII XXI	— —
50	0.35	BU/ YE	7574	IX	—	Electric Variable Displacement Control Electric Variable Displacement Control	50	0.35 0.35	BU/ YE BU/ YE	7574 7574	XIII XXI	— —

X225 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
51	0.5 0.5	GN GN	199 199	XI X	— —	Left Rear Speaker Control (+) Left Rear Speaker Control (+)	51	0.5 0.5	GN GN	199 199	XXI XIII	— —
52	0.5 0.5	GN/BK GN/BK	116 116	XI X	— —	Left Rear Speaker Signal (-) Left Rear Speaker Signal (-)	52	0.5 0.5	GN/BK GN/BK	116 116	XXI XIII	— —
53	0.35	GN/BN	507	IX	—	Wait To Start Indicator Control Wait To Start Indicator Control	53	0.35 0.35	GN/BN GN/BN	507 507	XXI XIII	— —
54	0.35	WH/BN	7296	IX	—	Right Minor Endgate Ajar Signal Right Minor Endgate Ajar Signal	54	0.35 0.35	WH/BN WH/BN	7296 7296	XIII XXI	— —
55	0.35	YE/BU	7295	IX	—	Left Minor Endgate Ajar Signal Left Minor Endgate Ajar Signal	55	0.35 0.35	YE/BU YE/BU	7295 7295	XIII XXI	— —
56	0.35	GN/VT	7533	IX	—	Local Interconnect Network Serial Data Bus 11 Local Interconnect Network Serial Data Bus 11	56	0.35 0.35	GN/VT GN/VT	7533 7533	XIII XXI	— —
57	0.35	GN/YE	2731	IX	—	Local Interconnect Network Bus 31 Local Interconnect Network Bus 31	57	0.35 0.35	GN/YE GN/YE	2731 2731	XIII XXI	— —
58	—	—	—	—	—	Run/Crank Ignition 1 Voltage	58	0.5	VT/GN	439	XIII	—
59	0.35	BN	7754	IX	—	AC Power Outlet Enable AC Power Outlet Enable	59	0.5 0.5 0.35 0.35	BN BN BN BN	7754 7754 7754 7754	XIX XIV XXI XIV	— — — —

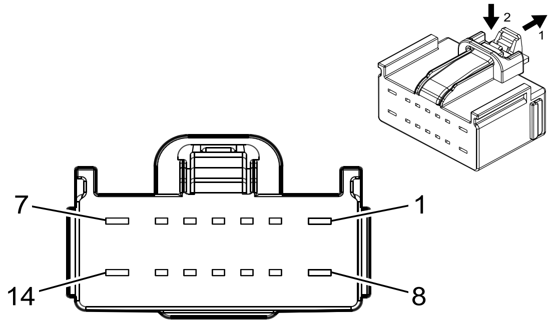
X225 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
60	0.35	GN/VT	1601	IX	—	Steering Column Lock Signal Steering Column Lock Signal	60	0.35 0.35	GN/VT GN/VT	1601 1601	XIII XXI	— —
61	0.35	BK/GY	3559	IX	—	Passive Start Switch 2 Low Reference Passive Start Switch 2 Low Reference	61	0.35 0.35	BK/GY BK/GY	3559 3559	XIII XXI	— —
62	—	—	—	—	—	Not Occupied	62	—	—	—	—	—
63	0.35	BU/YE	6105	IX	—	High Speed GMLAN Serial Data (+) 2 High Speed GMLAN Serial Data (+) 2	63	0.5 0.5	BU/YE BU/YE	6105 6105	XXI XIII	— —
64	0.35	WH	6106	IX	—	High Speed GMLAN Serial Data (-) 2 High Speed GMLAN Serial Data (-) 2	64	0.5 0.5	WH WH	6106 6106	XIII XXI	— —
65	—	—	—	—	—	Powertrain Relay Coil Control	65	0.5	YE	5991	XIII	—
66	0.5	BN/BK	3552	XI	—	Passive Start Interior Antenna 1 Signal Hi Passive Start Interior Antenna 1 Signal Hi	66	0.35 0.35	BN/BK BN/BK	3552 3552	XXI XIII	— —
67	0.5	WH	3553	XI	—	Passive Start Interior Antenna 1 Signal Lo Passive Start Interior Antenna 1 Signal Lo	67	0.35 0.35	WH WH	3553 3553	XIII XXI	— —
68	0.35	YE/VT	6191	IX	—	Power Sliding Window Switch Open Signal Power Sliding Window Switch Open Signal	68	0.35 0.35	YE/VT YE/VT	6191 6191	XXI XIII	— —

X225 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
69	0.35	WH	6192	IX	—	Power Sliding Window Switch Close Signal Power Sliding Window Switch Close Signal	69	0.35 0.35	WH WH	6192 6192	XIII XXI	— —
70	0.35	GY/BK	3276	IX	—	Vehicle Anti-Theft System Immobilizer Control Vehicle Anti-Theft System Immobilizer Control	70	0.35 0.35	GY/BK GY/BK	3276 3276	XXI XIII	— —
71	—	—	—	—	—	Powertrain Relay Coil Control	71	0.5	YE	5991	XIII	—
72	0.35	BN	1560	IX	—	Neutral Indicator Control Neutral Indicator Control	72	0.35 0.35	BN BN	1560 1560	XXI XIII	— —
73	—	—	—	—	—	Not Occupied	73	—	—	—	—	—
74	0.35	BU/BN	6807	IX	—	DC To AC Inverter Control DC To AC Inverter Control	74	0.35 0.35	BU/BN BU/BN	6807 6807	XXI XIII	— —
75	0.35	VT	185	IX	—	Low Washer Fluid Indicator Control Low Washer Fluid Indicator Control	75	0.35 0.35	VT VT	185 185	XIII XXI	— —
76	0.5	BN/WH	7462	X	—	Running Boards Disable Signal Running Boards Disable Signal	76	0.35 0.35	BN/WH BN/WH	7462 7462	XIII XXI	— —

X241 Body Harness to Power Inverter Module Jumper Harness (KI4/KI5)



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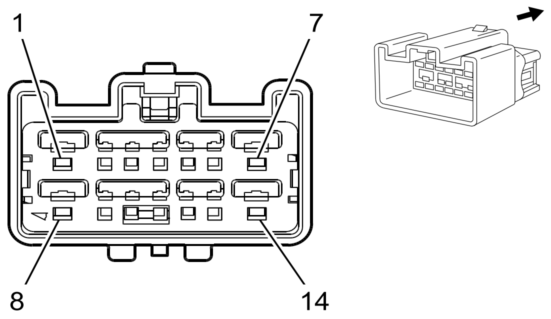

1283905

Connector Part Information

Harness Type: Body
OEM Connector: 33366376
Service Connector: 13513605
Description: 14-Way F 1.5, 2.8 Series (GY)

Connector Part Information

Harness Type: Power Inverter Module Jumper
OEM Connector: 10846900
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way M 1.5, 2.8 Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	84616651	J-35616-2A (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	84616651	J-35616-4A (PU)	J-38125-215A	7116-4111-02	Yazaki 9	E	A
III	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X241 Body Harness to Power Inverter Module Jumper Harness (KI4/KI5)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	5683	II	—	120 V AC Phase A	1	0.75	BK	5683	IV	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.35	VT/YE	5985	I	—	Accessory Wakeup Serial Data	3	0.35	VT/YE	5985	III	—
4	0.35	WH/GN	4628	I	—	DC/AC Inverter Relay Control	4	0.35	WH/GN	4628	III	—
5	0.35	BU/BN	6807	I	—	DC To AC Inverter Control	5	0.35	BU/BN	6807	III	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.75	BK/WH	2264	II	—	120 VAC Phase A 2	7	0.75	BK/WH	2264	IV	—
8	0.75	RD	5684	II	—	120 V AC Phase B	8	0.75	RD	5684	IV	—

X241 Body Harness to Power Inverter Module Jumper Harness (KI4/KI5) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.35	Bare	514	I	—	Low Reference	9	0.35	Bare	514	III	—
10	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	10	0.35	GN	5060	III	—
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—
12	0.75	GN/ BN	2266	I	—	DC To AC Inverter Control 2	12	0.75	GN/ BN	2266	III	—
13	0.35	Bare	2257	I	—	Drain Wire	13	0.35	Bare	2257	III	—
14	0.75	RD/ WH	2265	II	—	120 VAC Phase B 2	14	0.75	RD/ WH	2265	IV	—

X250 Electrical Auxiliary Heater Jumper Harness to Body Harness (C32+Crew Cab)

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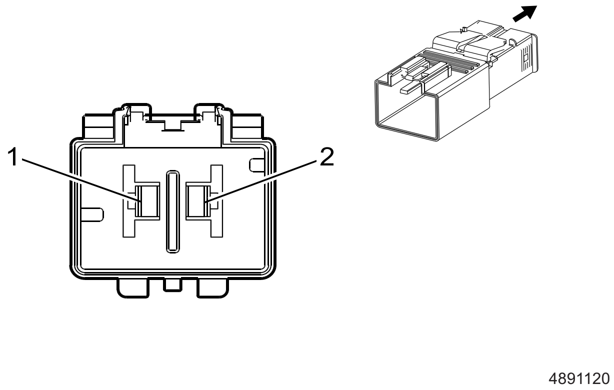

Connector Part Information

Harness Type: Electrical Auxiliary Heater Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 33362086
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 9.5 MCON-LL Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-22 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-21 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X250 Electrical Auxiliary Heater Jumper Harness to Body Harness (C32+Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
2	10	RD/GY	642	I	—	Battery Positive Voltage	2	10	RD/GY	642	II	—

X250 Electrical Auxiliary Heater Jumper Harness to Body Harness (C32 +Extended Cab)

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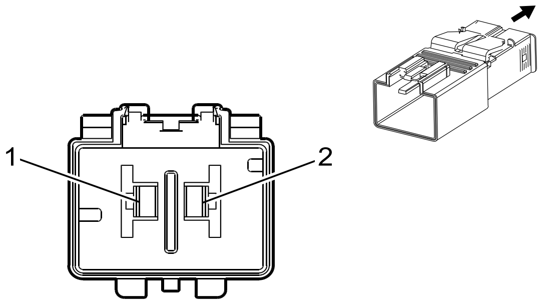


4891120

Connector Part Information

Harness Type: Electrical Auxiliary Heater Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 35134697
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 9.5 MCON-LL Series (BK)

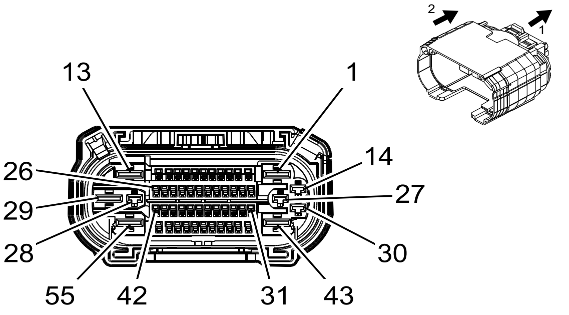
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-22 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-21 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X250 Electrical Auxiliary Heater Jumper Harness to Body Harness (C32+Extended Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
2	10	RD/GY	642	I	—	Battery Positive Voltage	2	10	RD/GY	642	II	—

X256 Headliner Harness to Instrument Panel Harness



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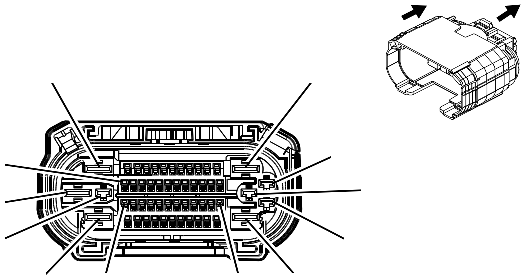


4992168

Connector Part Information

Harness Type: Headliner

OEM Connector: 35141318

Service Connector: 84616678

Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Connector Part Information

Harness Type: Instrument Panel

OEM Connector: 35205189

Service Connector: 84727364

Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	84616651	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	84616651	J-35616-35 (VT)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	84616651	J-35616-40 (BU)	J-38125-215A	1241408-1	Lear 28	A	B
IV	84616651	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
V	84616651	J-35616-32 (OR)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	84616651	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X256 Headliner Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	BK	1050	III	—	Ground	1	2.5	BK	1050	V	—
2	1.5	BK	9003	I	—	—	2	—	—	—	—	—
3	0.35	BU/BK	7044	I	—	Microphone (-) Low Reference	3	0.35	BU/BK	7044	IV	—
4	0.35	VT/YE	7043	I	—	Microphone (+) Signal	4	0.35	VT/YE	7043	IV	—
5	0.35	BU	655	I	—	Cellular Telephone Microphone Signal	5	0.35	BU	655	IV	—

X256 Headliner Harness to Instrument Panel Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.35	BK/BN	654	I	—	Cellular Telephone Microphone Low Reference	6	0.35	BK/BN	654	IV	—
7	0.35	BK	1782	I	—	Low Reference	7	0.35	BK	1782	IV	—
8	0.35	WH/GY	3936	I	—	High Speed GMLAN Serial Data (-) 8	8	0.35	WH/GY	3936	IV	—
9	0.35	BU/GY	3935	I	—	High Speed GMLAN Serial Data (+) 8	9	0.35	BU/GY	3935	IV	—
10	0.35	GY	157	I	—	Interior Lamp Control	10	0.35	GY	157	IV	—
11	0.35	BK/WH	1851	I	—	Signal Ground	11	0.5	BK/WH	1851	IV	—
12	1.5	BK	9003	I	—	—	12	—	—	—	—	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	2.5	RD/GN	3140	II	—	Battery Positive Voltage	14	2.5	RD/GN	3140	VI	—
15	0.5	WH/VT	1430	I	—	Exterior Courtesy Lamp Control	15	0.5	WH/VT	1430	IV	—
16	0.35	WH/BU	5986	I	—	Serial Data Communication Enable	16	0.35	WH/BU	5986	IV	—
17	0.35	BK/YE	1691	I	—	Automatic Day/Night Mirror Low Reference	17	0.35	BK/YE	1691	IV	—
18	0.35	GY/GN	7565	I	—	Windscreen Temp Sensor Signal	18	0.35	GY/GN	7565	IV	—
19	0.5	WH/BN	6815	I	—	Inadvertent Power Control	19	0.5	WH/BN	6815	IV	—
20	0.35	GN	2308	I	—	Passenger Air Bag Off Indicator Control	20	0.35	GN	2308	IV	—
21	0.35	BU	2307	I	—	Passenger Air Bag On Indicator Control	21	0.35	BU	2307	IV	—
22	0.35	YE/WH	1690	I	—	Automatic Day/Night Mirror Signal	22	0.35	YE/WH	1690	IV	—
23	0.35	WH	6192	I	—	Power Sliding Window Switch Close Signal	23	0.35	WH	6192	IV	—

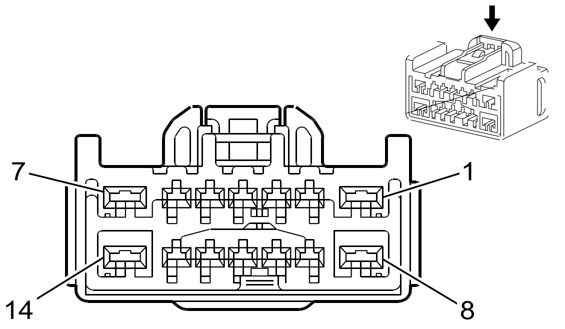
X256 Headliner Harness to Instrument Panel Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
24	0.35	GY	156	I	—	Courtesy Lamp Switch Signal	24	0.35	GY	156	IV	—
25	0.35	GN	5060	I	—	Low Speed GMLAN Serial Data	25	0.35	GN	5060	IV	—
26	0.35	YE/ BU	3197	I	—	Humidity Temperature Sensor Signal	26	0.35	YE/ BU	3197	IV	—
27 - 29	—	—	—	—	—	Not Occupied	27 - 29	—	—	—	—	—
30	2.5	GN/ BU	5989	II	—	Emergency Lamp Relay Contact Control	30	2.5	GN/ BU	5989	VI	—
31	0.35	BN/ WH	2517	I	—	Keypad Red LED Control	31	0.35	BN/ WH	2517	IV	—
32	0.35	YE/ VT	2516	I	—	Keypad Green LED Control	32	0.35	YE/ VT	2516	IV	—
33	0.35	GN/ WH	24	I	—	Backup Lamp Control	33	0.35	GN/ WH	24	IV	—
34	0.35	GY/ GN	328	I	—	Interior Lamp Defeat Switch Signal	34	0.35	GY/ GN	328	IV	—
35	0.35	BU/ GY	4672	I	—	Dome Lamp Off Indicator Control	35	0.35	BU/ GY	4672	IV	—
36	—	—	—	—	—	Not Occupied	36	—	—	—	—	—
37	0.35	GN/ WH	2514	I	—	Keypad Signal	37	0.35	GN/ WH	2514	IV	—
38	0.35	GN/ BK	2515	I	—	Keypad Control	38	0.35	GN/ BK	2515	IV	—
39	0.5 0.5	VT/ GY VT/ WH	1054 5065	I I	— —	Stop Lamp Control Stop Lamp Relay Coil Control	39	0.35	VT/ GY	1054	IV	—
40	0.35	WH	3152	I	—	Lane Departure Warning Indicator Control	40	0.35	WH	3152	IV	—
41	0.35	GY/ WH	3153	I	—	Lane Departure Warning Disable Switch Signal	41	0.35	GY/ WH	3153	IV	—
42	0.35	YE	6817	I	—	LED Backlight Dimming Control	42	0.35	YE	6817	IV	—
43	—	—	—	—	—	Not Occupied	43	—	—	—	—	—
44	1.5	BK	9003	I	—	—	44	—	—	—	—	—

X256 Headliner Harness to Instrument Panel Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
45	0.35	WH	6816	I	—	Indicator Dimming Control	45	0.35	WH	6816	IV	—
46	0.35	YE/ RD	597	I	—	5V Reference	46	0.35	YE/ RD	597	IV	—
47	0.35	VT/ GN	7558	I	—	LED Ambient Lighting Control 2	47	0.35	VT/ GN	7558	IV	—
48	0.35	VT/ WH	5234	I	—	Passenger Seat Belt Indicator Control	48	0.35	VT/ WH	5234	IV	—
49	0.35	BK/ BU	7566	I	—	Humidity/ Windscreen Temp Sensor Low Reference	49	0.35	BK/ BU	7566	IV	—
50	0.35	GN/ BN	6132	I	—	Local Interconnect Network Serial Data Bus 1	50	0.35	GN/ BN	6132	IV	—
51	0.35	GY/ BU	7564	I	—	Humidity Sensor Signal	51	0.35	GY/ BU	7564	IV	—
52	0.35	YE/ VT	6191	I	—	Power Sliding Window Switch Open Signal	52	0.35	YE/ VT	6191	IV	—
53	—	—	—	—	—	Not Occupied	53	—	—	—	—	—
54	1.5	BK	9003	I	—	—	54	—	—	—	—	—
55	—	—	—	—	—	Not Occupied	55	—	—	—	—	—

X260 Auxiliary Instrument Panel Harness to Trailer Harness



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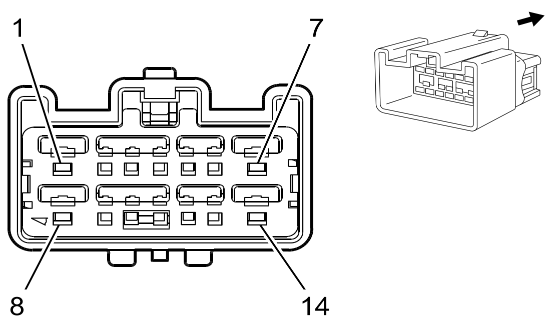


1283905

Connector Part Information

Harness Type: Auxiliary Instrument Panel
OEM Connector: 10847017
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way F 1.5, 2.8 Series (L-GY)

Connector Part Information

Harness Type: Trailer
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 14-Way M

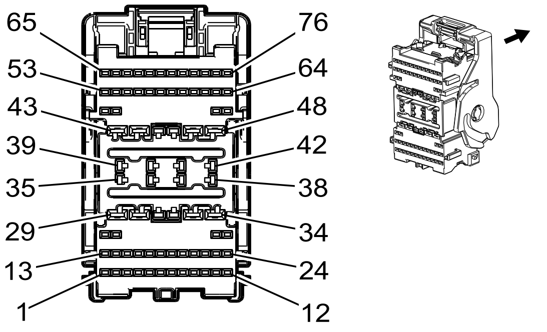
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X260 Auxiliary Instrument Panel Harness to Trailer Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2	BK	1250	II	—	Ground	1	2	BK	1250	III	—
2 - 4	—	—	—	—	—	Not Occupied	2 - 4	—	—	—	—	—
5	0.5	WH/BU	3691	I	—	Trailer Brake Apply Signal	5	0.5	WH/BU	3691	III	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	2	RD/VT	1242	II	—	Battery Positive Voltage	7	2	RD/VT	1242	III	—
8 - 13	—	—	—	—	—	Not Occupied	8 - 13	—	—	—	—	—
14	2	BU	47	II	—	Trailer Auxiliary Control	14	2	BU	47	III	—

X275 Instrument Panel Harness to Body Harness



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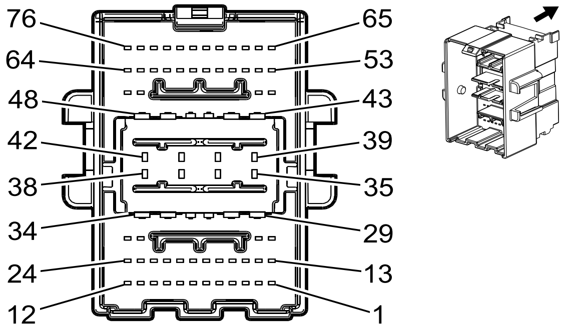


3960526

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 35142991
Service Connector: 84581287
Description: 76-Way F 1.2, 1.5, 2.8 YESC Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 33303580
Service Connector: 19369989
Description: 76-Way M 1.2 MCON-CB, 1.5, 2.8 YESC Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	84616651	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	84616651	J-35616-2A (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
III	84616651	J-35616-4A (PU)	J-38125-215A	7116-4110-02	Yazaki 9	E	C
IV	84616651	J-35616-4A (PU)	J-38125-215A	7116-4111-02	Yazaki 9	E	A
V	84616651	J-35616-4A (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	84616651	J-25616-64B (LT BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VII	84616651	J-35616-13 (BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VIII	84616651	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IX	84616651	J-35616-3 (GY)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
X	84616651	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X275 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	RD/ WH	3440	I	—	Battery Positive Voltage	2	0.5	RD/ WH	3440	VIII	—

X275 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5	BN/ WH	3895	I	—	Roof Rail Air Bag Defeat Switch Low Reference Roof Rail Air Bag Defeat Switch Low Reference	3	0.5	BN/ WH	3895	VIII	—
4	0.5	BU/ WH	3119	I	—	Roof Rail Air Bag Defeat Switch Signal Roof Rail Air Bag Defeat Switch Signal	4	0.5	BU/ WH	3119	VIII	—
5	0.35	GY/ GN	2555	I	—	Rear Park Assist Disable Signal Rear Park Assist Disable Signal	5	0.35	GY/ GN	2555	VIII	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.35	VT/ WH	5234	I	—	Passenger Seat Belt Indicator Control Passenger Seat Belt Indicator Control	7	0.35	VT/ WH	5234	VIII	—
8	0.35	BU	2307	I	—	Passenger Air Bag On Indicator Control Passenger Air Bag On Indicator Control	8	0.35	BU	2307	VIII	—
9	0.35	BU/ GY	4672	I	—	Dome Lamp Off Indicator Control Dome Lamp Off Indicator Control	9	0.35	BU/ GY	4672	VIII	—
10	0.35	GY	156	I	—	Courtesy Lamp Switch Signal Courtesy Lamp Switch Signal	10	0.35	GY	156	VIII	—
11	0.35	GN/ BU	761	I	—	Blower Speed Feedback Signal Blower Speed Feedback Signal	11	0.35	GN/ BU	761	VIII	—

X275 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12	0.35	GN/GY	817	I	—	Vehicle Speed Signal Vehicle Speed Signal	12	0.35	GN/GY	817	VIII	—
13	0.35	GN	2308	I	—	Passenger Air Bag Off Indicator Control Passenger Air Bag Off Indicator Control	13	0.35	GN	2308	VIII	—
14	—	—	—	—	—	Not Occupied	14	—	—	—	—	—
15	0.35	YE/OG	3025	I	—	Passenger IP Module Stage 1 High Control Passenger IP Module Stage 1 High Control	15	0.35 0.35	YE/OG YE/OG	3025 3025	VI VIII	— —
16	0.35	OG/WH	3024	I	—	Passenger IP Module Stage 1 Low Control Passenger IP Module Stage 1 Low Control	16	0.35 0.35	OG/WH OG/WH	3024 3024	VI VIII	— —
17	0.35	GY/OG	3027	I	—	Passenger IP Module Stage 2 High Control Passenger IP Module Stage 2 High Control	17	0.35 0.35	GY/OG GY/OG	3027 3027	VI VIII	— —
18	0.35	OG/VT	3026	I	—	Passenger IP Module Stage 2 Low Control Passenger IP Module Stage 2 Low Control	18	0.35 0.35	OG/VT OG/VT	3026 3026	VI VIII	— —
19	0.35	GN/BN	6132	I	—	Local Interconnect Network Serial Data Bus 1 Local Interconnect Network Serial Data Bus 1	19	0.5	GN/BN	6132	VIII	—

X275 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
20	0.35	GY/ GN	1102	I	—	Low Speed GMLAN Serial Data #2 Low Speed GMLAN Serial Data #2	20	0.75 0.5 0.35	GY/ GN GY/ GN GY/ GN	1102 1102 1102	VIII VIII VIII	— — —
21	0.35	YE	6817	I	—	LED Backlight Dimming Control LED Backlight Dimming Control	21	0.35	YE	6817	VIII	—
22	0.5	GN/ GY	6135	I	—	Local Interconnect Network Serial Data Bus 4 Local Interconnect Network Serial Data Bus 4	22	0.35	GN/ GY	6135	VIII	—
23 - 26	—	—	—	—	—	Not Occupied	23 - 26	—	—	—	—	—
27	0.35	YE	7755	I	—	AC Power Outlet Status Indicator Control AC Power Outlet Status Indicator Control	27	0.35	YE	7755	VIII	—
28	0.35	VT/ WH	239	I	—	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	28	0.35	VT/ WH	239	VIII	—
29	2	BK	1250	V	—	Ground	29	2	BK	1250	X	—
30	0.5	RD/ GN	5140	III	—	Battery Positive Voltage	30	0.5	RD/ GN	5140	X	—
31	0.5	BK/ WH	2751	II	—	Signal Ground Signal Ground	31	0.75 0.5	BK/ WH BK/ WH	2751 2751	IX IX	— —
32	0.35	WH/ VT	6821	II	—	Surveillance Switch Signal	32	0.35	WH/ VT	6821	IX	—
33	0.75	WH/ YE	1853	IV	—	Right Front Midrange Speaker Control (+)	33	0.75	WH/ YE	1853	X	—

X275 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
34	0.75	BN/ BK	1953	IV	—	Right Front Midrange Speaker (-) Low Reference	34	0.75	BN/ BK	1953	X	—
35	0.35	GY	1198	II	—	Endgate Release Switch Analog Signal Interior	35	0.35	GY	1198	IX	—
36	0.5	WH/ BU	3691	II	—	Trailer Brake Apply Signal	36	0.5	WH/ BU	3691	IX	—
37	0.35	RD/ WH	1340	II	—	Battery Positive Voltage	37	0.35	RD/ WH	1340	IX	—
38 - 39	—	—	—	—	—	Not Occupied	38 - 39	—	—	—	—	—
40	0.35	GN/ WH	24	II	—	Backup Lamp Control	40	0.35	GN/ WH	24	IX	—
41	0.5	WH/ VT	1430	II	—	Exterior Courtesy Lamp Control	41	1	WH/ VT	1430	IX	—
42	0.35	VT/ BN	300	II	—	Run Ignition 3 Voltage	42	0.35	VT/ BN	300	IX	—
43	2	BU	47	V	—	Trailer Auxiliary Control	43	2	BU	47	X	—
44	2	RD/ VT	1242	V	—	Battery Positive Voltage	44	2	RD/ VT	1242	X	—
45	0.75	BK/ WH	2751	II	—	Signal Ground	45	0.75	BK/ WH	2751	IX	—
46	0.35	VT/ BU	6091	II	—	Crankshaft Position Sensor Replicated Signal	46	0.35	VT/ BU	6091	IX	—
47	0.75	YE/ BK	117	V	—	Right Front Speaker Signal (-) 1	47	0.75	YE/ BK	117	X	—
48	0.75	YE	200	V	—	Right Front Speaker Control (+) 1	48	0.75	YE	200	X	—
49 - 50	—	—	—	—	—	Not Occupied	49 - 50	—	—	—	—	—
51	0.5	WH	46	I	—	Right Rear Speaker Control (+) Right Rear Speaker Control (+)	51	0.5	WH	46	VIII	—
52	0.5	BU/ BK	115	I	—	Right Rear Speaker Signal (-) Right Rear Speaker Signal (-)	52	0.5	BU/ BK	115	VIII	—

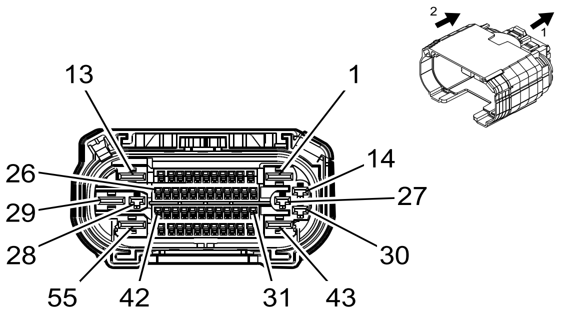
X275 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
53	—	—	—	—	—	Not Occupied	53	—	—	—	—	—
54	0.35	GY/ WH	3272	I	—	Remote Function Actuator Control Remote Function Actuator Control	54	0.35	GY/ WH	3272	VIII	—
55	0.35	BU/ WH	3275	I	—	Remote Function Actuator Receive Signal Remote Function Actuator Receive Signal	55	0.35	BU/ WH	3275	VIII	—
56	0.35	YE/ GN	3274	I	—	Remote Function Actuator Transmit Signal Remote Function Actuator Transmit Signal	56	0.35	YE/ GN	3274	VIII	—
57	0.35	GY	3273	I	—	Remote Function Actuator Low Reference Remote Function Actuator Low Reference	57	0.35	GY	3273	VIII	—
58	0.5	BN/ VT	193	I	—	Rear Defog Relay Control Rear Defog Relay Control	58	0.5	BN/ VT	193	VIII	—
59	0.35	YE	6812	I	—	Out of Park Signal Out of Park Signal	59	0.35	YE	6812	VIII	—
60 - 62	—	—	—	—	—	Not Occupied	60 - 62	—	—	—	—	—
63	0.35	WH/ GN	1305	I	—	High Speed GMLAN Serial Data (-)9 High Speed GMLAN Serial Data (-)9	63	0.5	WH/ GN	1305	VIII	—

X275 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
64	0.35	BU/ GN	1304	I	—	High Speed GMLAN Serial Data (+)9 High Speed GMLAN Serial Data (+)9	64	0.5	BU/ GN	1304	VIII	—
65	—	—	—	—	—	Not Occupied	65	—	—	—	—	—
66	0.35	Bare	6974	I	—	Camera Low Reference Camera Low Reference	66	0.35 0.35	Bare Bare	6974 6974	VII VIII	— —
67	0.35	GY/ YE	6972	I	—	Camera Signal 2 + Camera Signal 2 +	67	0.35	GY/ YE	6972	VIII	—
68	0.35	WH/ BU	6973	I	—	Camera Signal 2 Camera Signal 2	68	0.35	WH/ BU	6973	VIII	—
69	0.35	GN/ BN	5852	I	—	Rear Park Assist LED Disable Signal Rear Park Assist LED Disable Signal	69	0.35	GN/ BN	5852	VIII	—
70	0.35	VT/ YE	43	I	—	Accessory Ignition Voltage Accessory Ignition Voltage	70	0.35	VT/ YE	43	VIII	—
71 - 72	—	—	—	—	—	Not Occupied	71 - 72	—	—	—	—	—
73	0.35	VT/ GY	1054	I	—	Stop Lamp Relay Coil Control Stop Lamp Control	73	0.35 0.35	VT/ WH VT/ GY	5065 1054	VIII VIII	— —
74	0.35	BN	7291	I	—	Major Endgate Release Switch Signal Interior Major Endgate Release Switch Signal Interior	74	0.35	BN	7291	VIII	—
75 - 76	—	—	—	—	—	Not Occupied	75 - 76	—	—	—	—	—

X310 Driver Seat Harness to Body Harness (Crew Cab)



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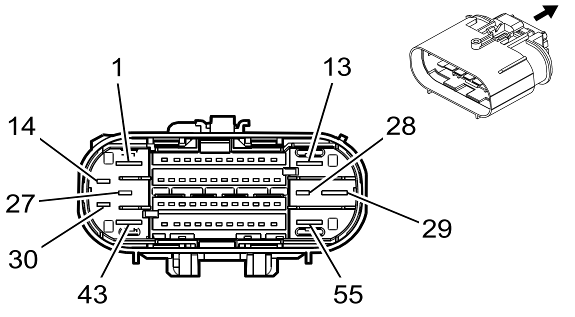


4993301

Connector Part Information

Harness Type: Driver Seat

OEM Connector: 35016652

Service Connector: Service by Harness - See Part Catalog

Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Connector Part Information

Harness Type: Body

OEM Connector: 33357991

Service Connector: 19371183

Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	84616651	J-25616-64B (LT BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
V	84616651	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	84616651	J-35616-32 (OR)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X310 Driver Seat Harness to Body Harness (Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	BK	1150	II	—	Ground	1	2.5	BK	1150	VI	—
2	—	—	—	—	—	—	2	1	BK	9003	V	—
3	0.5	GN/WH	7530	I	—	Local Interconnect Network Serial Data Bus 8	3	0.35	GN/WH	7530	V	—
4	0.5	RD/BN	1140	I	—	Battery Positive Voltage	4	0.35	RD/BN	1140	V	—
5	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	5	0.35	GN	5060	V	—

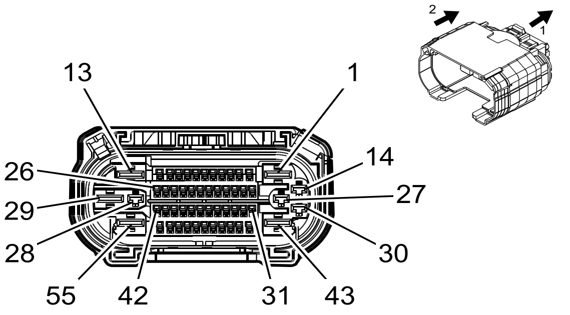
X310 Driver Seat Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	BU/ GN	614	I	—	Memory Seat Switch Set Signal	6	0.35	BU/ GN	614	V	—
7	0.5	BK/ BU	5978	I	—	Memory Switch Low Reference	7	0.35	BK/ BU	5978	V	—
8	0.5	WH	615	I	—	Memory Seat Switch Signal 1	8	0.35	WH	615	V	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	BK/ YE	2080	I	—	Driver Heated Seat NTC Low Reference	10	0.35	BK/ YE	2080	V	—
11	0.5	YE/ GY	2079	I	—	Driver Heated Seat NTC Signal	11	0.35	YE/ GY	2079	V	—
12	—	—	—	—	—	—	12	1	BK	9003	V	—
13	2.5	RD/ YE	5040	II	—	Battery Positive Voltage	13	2.5	RD/ YE	5040	VI	—
14	—	—	—	—	—	Not Occupied	14	—	—	—	—	—
15	0.75	BN/ VT	2077	I	—	Driver Heated Seat Element Control	15	0.75	BN/ VT	2077	V	—
16	0.75	BN/ BK	2078	I	—	Driver Heated Seat Element Low Reference	16	0.75	BN/ BK	2078	V	—
17	0.5	BK/ VT	2426	I	—	Driver Heated Back NTC Low Reference	17	0.35	BK/ VT	2426	V	—
18	0.5	BU	2425	I	—	Driver Heated Back NTC Signal	18	0.35	BU	2425	V	—
19	0.75	BN	2432	I	—	Driver Heated Back Element Control	19	0.75	BN	2432	V	—
20	0.5	GN/ VT	5906	I	—	Driver Seat Vent Motor Control 1	20	0.35	GN/ VT	5906	V	—
21	0.75	VT/ WH	4939	I	—	Run/Crank Ignition 1 Voltage	21	0.5	VT/ WH	4939	V	—
22 - 28	—	—	—	—	—	Not Occupied	22 - 28	—	—	—	—	—
29	0.75	RD/ YE	8840	II	—	Battery Positive Voltage	29	0.75	RD/ YE	8840	VI	—
30	—	—	—	—	—	Not Occupied	30	—	—	—	—	—

X310 Driver Seat Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
31	—	—	—	—	—	Driver Seat Position Switch Signal	31	0.35	OG/ GN	5055	V	—
32	0.35	OG/ BN	238	I	—	Driver Seat Belt Switch Signal	32	0.35	OG/ BN	238	V	—
33	0.5	BK/ OG	1363	I	—	Driver Seat Belt Switch Low Reference	33	0.35	BK/ OG	1363	V	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	OG/ BU	3068	III	—	Driver Side Impact Module High Control	35	0.5	OG/ BU	3068	IV	—
36	0.5	BK/ OG	3069	III	—	Driver Side Impact Module Low Control	36	0.5	GN/ OG	3069	IV	—
37 - 43	—	—	—	—	—	Not Occupied	37 - 43	—	—	—	—	—
44	—	—	—	—	—	—	44	1	BK	9003	V	—
45 - 53	—	—	—	—	—	Not Occupied	45 - 53	—	—	—	—	—
54	—	—	—	—	—	—	54	1	BK	9003	V	—
55	—	—	—	—	—	Not Occupied	55	—	—	—	—	—

X310 Driver Seat Harness to Body Harness (Extended Cab/Regular Cab)



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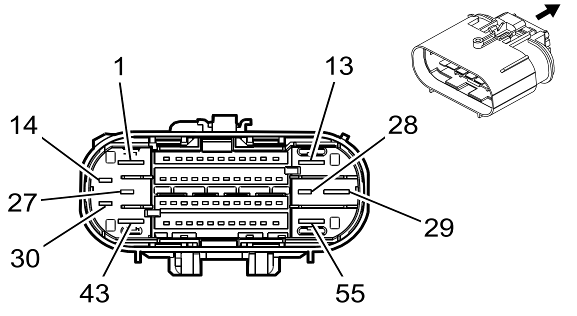


4993301

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 35016652
Service Connector: Service by Harness - See Part Catalog
Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 35205186
Service Connector: 84727364
Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	84616651	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
V	84616651	J-35616-32 (OR)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X310 Driver Seat Harness to Body Harness (Extended Cab/Regular Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	BK	1150	II	—	Ground	1	2.5	BK	1150	V	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.5	GN/WH	7530	I	—	Local Interconnect Network Serial Data Bus 8	3	0.35	GN/WH	7530	IV	—
4	0.5	RD/BN	1140	I	—	Battery Positive Voltage	4	0.35	RD/BN	1140	IV	—
5	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	5	0.35	GN	5060	IV	—
6	0.5	BU/GN	614	I	—	Memory Seat Switch Set Signal	6	0.35	BU/GN	614	IV	—

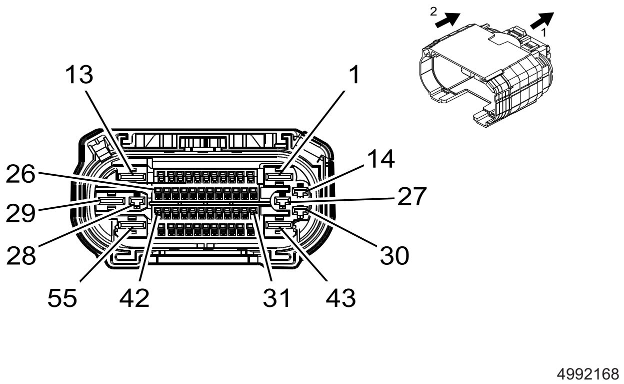
X310 Driver Seat Harness to Body Harness (Extended Cab/Regular Cab) (cont'd)

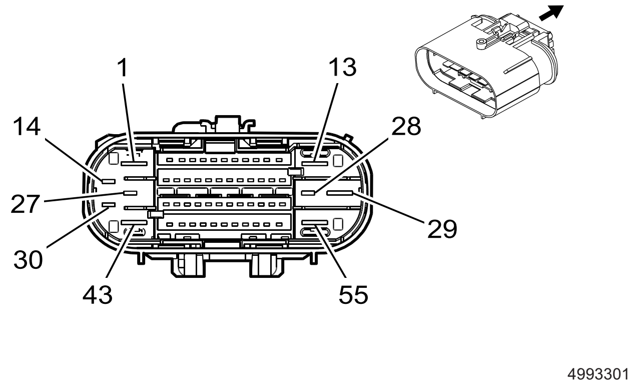
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	BK/ BU	5978	I	—	Memory Switch Low Reference	7	0.35	BK/ BU	5978	IV	—
8	0.5	WH	615	I	—	Memory Seat Switch Signal 1	8	0.35	WH	615	IV	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	BK/ YE	2080	I	—	Driver Heated Seat NTC Low Reference	10	0.35	BK/ YE	2080	IV	—
11	0.5	YE/ GY	2079	I	—	Driver Heated Seat NTC Signal	11	0.35	YE/ GY	2079	IV	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—
13	2.5	RD/ YE	5040	II	—	Battery Positive Voltage	13	2.5	RD/ YE	5040	V	—
14	—	—	—	—	—	Not Occupied	14	—	—	—	—	—
15	0.75	BN/ VT	2077	I	—	Driver Heated Seat Element Control	15	0.75	BN/ VT	2077	IV	—
16	0.75	BN/ BK	2078	I	—	Driver Heated Seat Element Low Reference	16	0.75	BN/ BK	2078	IV	—
17	0.5	BK/ VT	2426	I	—	Driver Heated Back NTC Low Reference	17	0.35	BK/ VT	2426	IV	—
18	0.5	BU	2425	I	—	Driver Heated Back NTC Signal	18	0.35	BU	2425	IV	—
19	0.75	BN	2432	I	—	Driver Heated Back Element Control	19	0.75	BN	2432	IV	—
20	0.5	GN/ VT	5906	I	—	Driver Seat Vent Motor Control 1	20	0.35	GN/ VT	5906	IV	—
21	0.75	VT/ WH	4939	I	—	Run/Crank Ignition 1 Voltage	21	0.5	VT/ WH	4939	IV	—
22 - 28	—	—	—	—	—	Not Occupied	22 - 28	—	—	—	—	—
29	0.75	RD/ YE	8840	II	—	Battery Positive Voltage	29	0.75	RD/ YE	8840	V	—
30 - 31	—	—	—	—	—	Not Occupied	30 - 31	—	—	—	—	—
32	0.35	OG/ BN	238	I	—	Driver Seat Belt Switch Signal	32	0.35	OG/ BN	238	IV	—

X310 Driver Seat Harness to Body Harness (Extended Cab/Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
33	0.5	BK/OG	1363	I	—	Driver Seat Belt Switch Low Reference	33	0.35	BK/OG	1363	IV	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	OG/BU	3068	III	—	Driver Side Impact Module High Control	35	0.5	OG/BU	3068	IV	—
36	0.5	BK/OG	3069	III	—	Driver Side Impact Module Low Control	36	0.5	GN/OG	3069	IV	—
37 - 55	—	—	—	—	—	Not Occupied	37 - 55	—	—	—	—	—

X320 Passenger Seat Harness to Body Harness (Crew Cab)





Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 35016652

Service Connector: Service by Harness - See Part Catalog

Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Connector Part Information

Harness Type: Body

OEM Connector: 33357991

Service Connector: 19371183

Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required
V	84616651	J-25616-64B (LT BU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	84616651	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VII	84616651	J-35616-32 (OR)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VIII	84616651	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X320 Passenger Seat Harness to Body Harness (Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75 2.5	BK BK	1250 1250	III III	— —	Ground Ground	1	2.5	BK	1250	VII	—
2	—	—	—	—	—	—	2	1	BK	9003	VI	—
3 - 8	—	—	—	—	—	Not Occupied	3 - 8	—	—	—	—	—
9	0.5	GN/ BU	6133	I	—	Local Interconnect Network Serial Data Bus 2	9	0.35	GN/ BU	6133	VI	—

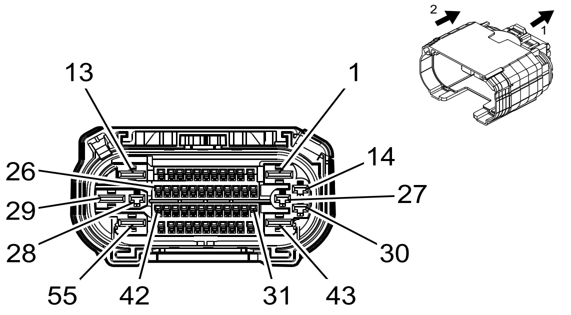
X320 Passenger Seat Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	0.5	BK/ YE	2080	I	—	Driver Heated Seat NTC Low Reference	10	0.35	BK/ YE	2080	VI	—
11	0.5	YE/ GY	2079	I	—	Driver Heated Seat NTC Signal	11	0.35	YE/ GY	2079	VI	—
12	—	—	—	—	—	—	12	1	BK	9003	VI	—
13	2.5	RD/ BN	1440	III	—	Battery Positive Voltage	13	2.5	RD/ BN	1440	VII	—
14	0.75	RD	6140	II	—	Battery Positive Voltage	14	0.5	RD	6140	VIII	—
15	0.75	BN/ VT	2077	I	—	Driver Heated Seat Element Control	15	0.75	BN/ VT	2077	VI	—
16	0.75	BN/ BK	2078	I	—	Driver Heated Seat Element Low Reference	16	0.75	BN/ BK	2078	VI	—
17	0.5	BK/ VT	2426	I	—	Driver Heated Back NTC Low Reference	17	0.35	BK/ VT	2426	VI	—
18	0.5	BU	2425	I	—	Driver Heated Back NTC Signal	18	0.35	BU	2425	VI	—
19	0.75	BN	2432	I	—	Driver Heated Back Element Control	19	0.75	BN	2432	VI	—
20	0.35	GN/ VT	5906	I	—	Driver Seat Vent Motor Control 1	20	0.35	GN/ VT	5906	VI	—
21	0.75	VT/ WH	4939	I	—	Run/Crank Ignition 1 Voltage	21	0.5	VT/ WH	4939	VI	—
22	0.5	RD/ GN	4440	I	—	Battery Positive Voltage	22	0.5	RD/ GN	4440	VI	—
23	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	23	0.35	GN	5060	VI	—
24	0.5	GY/ OG	3946	I	—	Automatic Locking Retractor Switch Low Reference	24	0.5	GY/ OG	3946	VI	—
25	0.5	OG/ BN	3947	I	—	Automatic Locking Retractor Switch Signal	25	0.5	OG/ BN	3947	VI	—
26	0.5	BK/ WH	2551	I	—	Signal Ground	26	0.5	BK/ WH	2551	VI	—
27	0.75	RD/ GN	5140	II	—	Battery Positive Voltage	27	0.5	RD/ GN	5140	VIII	—

X320 Passenger Seat Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
29	0.75	RD/ YE	8840	III	—	Battery Positive Voltage	29	0.75	RD/ YE	8840	VII	—
30 - 31	—	—	—	—	—	Not Occupied	30 - 31	—	—	—	—	—
32	0.35	OG/ VT	1362	I	—	Passenger Seat Belt Switch Signal	32	0.35	OG/ VT	1362	VI	—
33	0.5	BK/ OG	1361	I	—	Passenger Seat Belt Switch Low Reference	33	0.35	BK/ OG	1361	VI	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	OG/ GY	3066	IV	—	Passenger Side Impact Module High Control	35	0.35	OG/ GY	3066	V	—
36	0.5	BU/ OG	3067	IV	—	Passenger Side Impact Module Low Control	36	0.35	BN/ OG	3067	V	—
37 - 43	—	—	—	—	—	Not Occupied	37 - 43	—	—	—	—	—
44	—	—	—	—	—	—	44	1	BK	9003	VI	—
45 - 53	—	—	—	—	—	Not Occupied	45 - 53	—	—	—	—	—
54	—	—	—	—	—	—	54	1	BK	9003	VI	—
55	—	—	—	—	—	Not Occupied	55	—	—	—	—	—

X320 Passenger Seat Harness to Body Harness (Extended Cab/Regular Cab)



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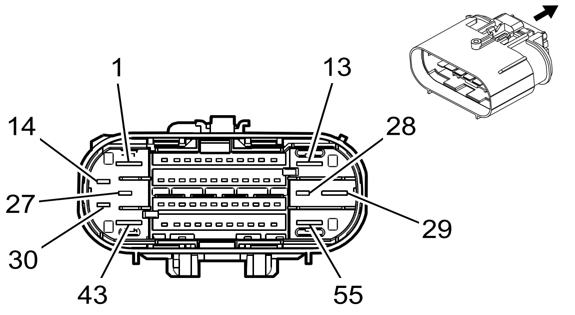


4993301

Connector Part Information

Harness Type: Passenger Seat

OEM Connector: 35016652

Service Connector: Service by Harness - See Part Catalog

Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Connector Part Information

Harness Type: Body

OEM Connector: 35205187

Service Connector: 84727364

Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required
V	84616651	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	84616651	J-35616-32 (OR)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VII	84616651	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X320 Passenger Seat Harness to Body Harness (Extended Cab/Regular Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	1250	III	—	Ground	1	2.5	BK	1250	VI	—
2 - 8	—	—	—	—	—	Not Occupied	2 - 8	—	—	—	—	—
9	0.5	GN/ BU	6133	I	—	Local Interconnect Network Serial Data Bus 2	9	0.35	GN/ BU	6133	V	—
10	0.5	BK/ YE	2080	I	—	Driver Heated Seat NTC Low Reference	10	0.35	BK/ YE	2080	V	—

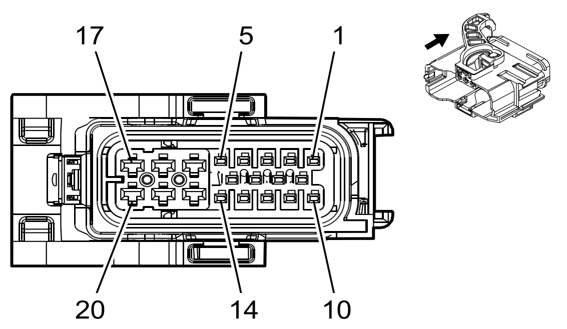
X320 Passenger Seat Harness to Body Harness (Extended Cab/Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.5	YE/ GY	2079	I	—	Driver Heated Seat NTC Signal	11	0.35	YE/ GY	2079	V	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—
13	2.5	RD/ BN	1440	III	—	Battery Positive Voltage	13	2.5	RD/ BN	1440	VI	—
14	0.75	RD	6140	II	—	Battery Positive Voltage	14	0.5	RD	6140	VII	—
15	0.75	BN/ VT	2077	I	—	Driver Heated Seat Element Control	15	0.75	BN/ VT	2077	V	—
16	0.75	BN/ BK	2078	I	—	Driver Heated Seat Element Low Reference	16	0.75	BN/ BK	2078	V	—
17	0.5	BK/ VT	2426	I	—	Driver Heated Back NTC Low Reference	17	0.35	BK/ VT	2426	V	—
18	0.5	BU	2425	I	—	Driver Heated Back NTC Signal	18	0.35	BU	2425	V	—
19	0.75	BN	2432	I	—	Driver Heated Back Element Control	19	0.75	BN	2432	V	—
20	0.35	GN/ VT	5906	I	—	Driver Seat Vent Motor Control 1	20	0.35	GN/ VT	5906	V	—
21	0.75	VT/ WH	4939	I	—	Run/Crank Ignition 1 Voltage	21	0.5	VT/ WH	4939	V	—
22	0.5	RD/ GN	4440	I	—	Battery Positive Voltage	22	0.5	RD/ GN	4440	V	—
23	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	23	0.35	GN	5060	V	—
24	0.5	GY/ OG	3946	I	—	Automatic Locking Retractor Switch Low Reference	24	0.5	GY/ OG	3946	V	—
25	0.5	OG/ BN	3947	I	—	Automatic Locking Retractor Switch Signal	25	0.5	OG/ BN	3947	V	—
26	0.5	BK/ WH	2551	I	—	Signal Ground	26	0.5	BK/ WH	2551	V	—
27	0.75	RD/ GN	5140	II	—	Battery Positive Voltage	27	0.5	RD/ GN	5140	VII	—
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—

X320 Passenger Seat Harness to Body Harness (Extended Cab/Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
29	0.75	RD/ YE	8840	III	—	Battery Positive Voltage	29	0.75	RD/ YE	8840	VI	—
30 - 31	—	—	—	—	—	Not Occupied	30 - 31	—	—	—	—	—
32	0.35	OG/ VT	1362	I	—	Passenger Seat Belt Switch Signal	32	0.35	OG/ VT	1362	V	—
33	0.5	BK/ OG	1361	I	—	Passenger Seat Belt Switch Low Reference	33	0.35	BK/ OG	1361	V	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	OG/ GY	3066	IV	—	Passenger Side Impact Module High Control	35	0.35	OG/ GY	3066	V	—
36	0.5	BU/ OG	3067	IV	—	Passenger Side Impact Module Low Control	36	0.35	BN/ OG	3067	V	—
37 - 55	—	—	—	—	—	Not Occupied	37 - 55	—	—	—	—	—

X348 Body Harness to Floor Console Harness



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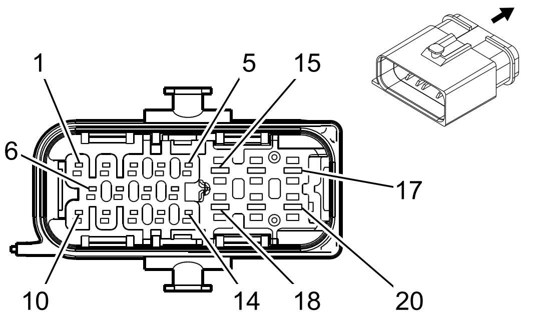


4500420

Connector Part Information

Harness Type: Body
OEM Connector: 13974124
Service Connector: 19371189
Description: 20-Way F 1.2, 2.8 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Floor Console
OEM Connector: 35137619
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way M 1.2, 2.8 MCP Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13576374	J-35616-35 (VT)	J-38125-557	1-968857-3	Lear 7	C	1
II	19119772	J-35616-35 (VT)	J-38125-215A	1241388-1	Lear 17	2	4
III	19119772	J-35616-35 (VT)	J-38125-215A	1241388-1	Lear 17	E	C
IV	19119772	J-35616-4A (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
V	19300446	J-35616-16 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VI	19301535	J-35616-16 (LT GN)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
VII	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
VIII	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X348 Body Harness to Floor Console Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.35 0.35	YE YE	6817 6817	V VI	— —	LED Backlight Dimming Control LED Backlight Dimming Control	2	0.5	YE	6817	VII	—

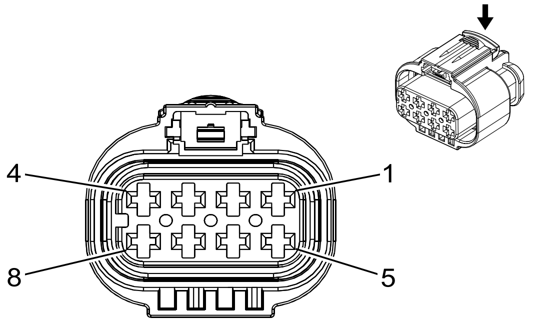
X348 Body Harness to Floor Console Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.35 0.35	GN/VT GN/VT	7533 7533	V VI	— —	Local Interconnect Network Serial Data Bus 11 Local Interconnect Network Serial Data Bus 11	3	0.35	GN/VT	7533	VII	—
4	0.35 0.35	GN/GY GN/GY	3277 3277	V VI	— —	Vehicle Anti-Theft System Immobilizer Low Reference Vehicle Anti-Theft System Immobilizer Low Reference	4	0.5	GN/GY	3277	VII	—
5	0.35 0.35	GY/BK GY/BK	3276 3276	V VI	— —	Vehicle Anti-Theft System Immobilizer Control Vehicle Anti-Theft System Immobilizer Control	5	0.5	GY/BK	3276	VII	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.35 0.35	RD/WH RD/WH	1340 1340	V VI	— —	Battery Positive Voltage Battery Positive Voltage	7	0.5 0.35	RD/WH RD/WH	1340 1340	VII VII	— —
8	0.35	GN/WH	4115	VI	—	Local Interconnect Network Serial Data Bus 15	8	0.35	GN/WH	4115	VII	—
9	0.35 0.35	VT/YE VT/YE	143 143	V VI	— —	Accessory Ignition Voltage Accessory Ignition Voltage	9	0.5	VT/YE	143	VII	—
10	—	—	—	—	—	Not Occupied	10	—	—	—	—	—
11	0.35 0.35	VT VT	4601 4601	V VI	— —	Retained Accessory Power Fused Control Retained Accessory Power Fused Control	11	0.5	VT	4601	VII	—

X348 Body Harness to Floor Console Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12	0.35 0.35	GN GN	4512 4512	V VI	— —	Wireless Charging System Charge Indicator Control Wireless Charging System Charge Indicator Control	12	0.35	GN	4512	VII	—
13	0.35 0.35	GY/BK GY/BK	3555 3555	V VI	— —	Passive Start Interior Antenna 2 Signal Lo Passive Start Interior Antenna 2 Signal Lo	13	0.5	GY/BK	3555	VII	—
14	0.35 0.35	BU BU	3554 3554	V VI	— —	Passive Start Interior Antenna 2 Signal Hi Passive Start Interior Antenna 2 Signal Hi	14	0.5	BU	3554	VII	—
15	1.5	RD/WH	1040	I	—	Battery Positive Voltage	15	1.5	RD/WH	1040	VIII	—
16	0.5	WH/BN	6815	III	—	Inadvertent Power Control	16	0.5	WH/BN	6815	VIII	—
17	1 1.5	BK BK	1250 1250	II I	— —	Ground Ground	17	1	BK	1250	VIII	—
18	—	—	—	—	—	Not Occupied	18	—	—	—	—	—
19	0.35	BN	4511	IV	—	Wireless Charging System Fault Indicator Control	19	0.5	BN	4511	VIII	—
20	2	BK	1250	I	—	Ground	20	2	BK	1250	VIII	—

X350 Chassis Harness to Fuel Tank Harness



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3749582

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180742
Service Connector: 19354078
Description: 8-Way F 2.8 Series, Sealed (L-GY)

Connector Part Information

Harness Type: Fuel Tank
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M

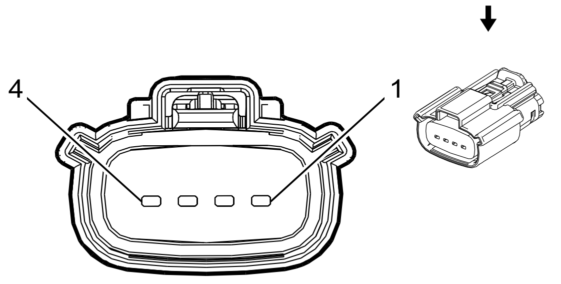
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X350 Chassis Harness to Fuel Tank Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	GY	120	I	—	Fuel Pump Control	1	2.5	GY	120	II	—
2	2.5	YE/GY	4137	I	—	Fuel Pump Supply Voltage Phase 2	2	2.5	YE/GY	4137	II	—
3	2.5	WH/BN	4138	I	—	Fuel Pump Supply Voltage Phase 3	3	2.5	WH/BN	4138	II	—
4	0.5	BN	7444	I	—	Fuel System Control Module Shield Ground	4	0.5	BN	7444	II	—
5	0.5	BU/VT	1589	I	—	Primary Fuel Level Sensor Signal	5	0.5	BU/VT	1589	II	—
6	0.5	BK/GN	6281	I	—	Fuel Level Sensor Low Reference	6	0.5	BK	6281	II	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X370 Body Harness to Left Rear Seat Harness (KA6)



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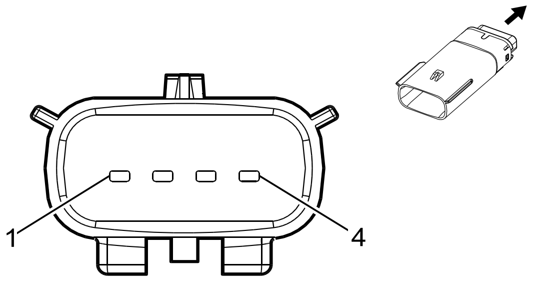


2917338

Connector Part Information

Harness Type: Body
OEM Connector: 15456952
Service Connector: 19371211
Description: 4-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Left Rear Seat
OEM Connector: 33481-0401
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.5 Series, Sealed (BK)

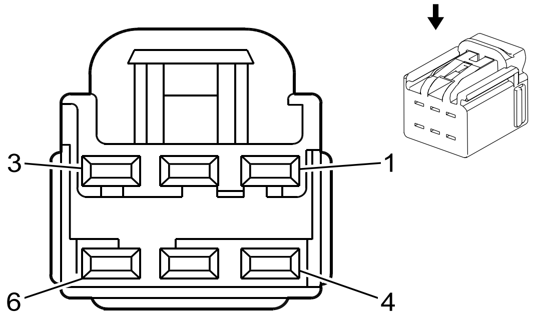
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X370 Body Harness to Left Rear Seat Harness (KA6)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	RD/YE	240	I	—	Battery Positive Voltage	1	0.75	RD/YE	240	II	—
2	0.5	RD/VT	340	I	—	Battery Positive Voltage	2	0.75	RD/VT	340	II	—
3	0.35	GN/BU	6133	I	—	Local Interconnect Network Serial Data Bus 2	3	0.5	GN/BU	6133	II	—
4	1	BK	1150	I	—	Ground	4	1	BK	1150	II	—

X380 Center High Mounted Stop Lamp Harness to Headliner Harness (Extended Cab/Regular Cab)



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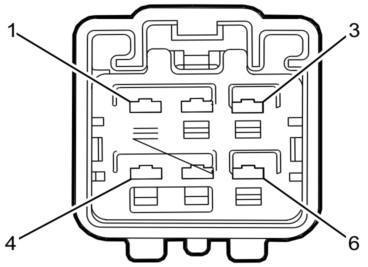


1849802

Connector Part Information

Harness Type: Center High Mounted Stop Lamp
OEM Connector: 10847014
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F YESC Kaizen Series (L-GY)

Connector Part Information

Harness Type: Headliner
OEM Connector: 10847012
Service Connector: 84769086
Description: 6-Way M YESC Kaizen Series (L-GY)

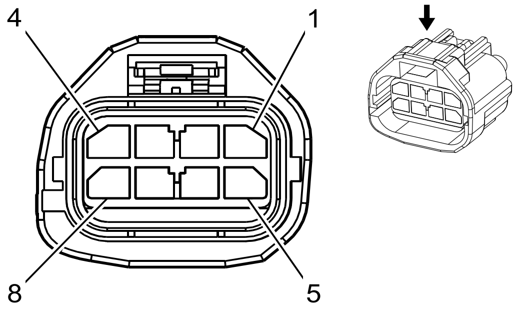
Terminal Part Information

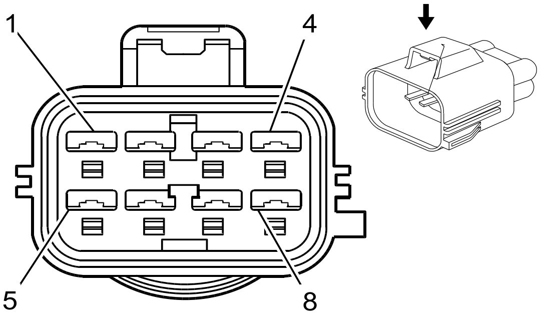
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X380 Center High Mounted Stop Lamp Harness to Headliner Harness (Extended Cab/Regular Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	WH/VT	1430	I	—	Exterior Courtesy Lamp Control	1	0.35	WH/VT	1430	II	—
2	0.35	VT/WH	5065	I	—	Stop Lamp Relay Coil Control	2	0.5	VT/WH	5065	II	—
3	0.35	BK	1050	I	—	Ground	3	0.35	BK	1050	II	—
4	2.5	GN/BU	5989	I	—	Emergency Lamp Relay Contact Control	4	2.5	GN/BU	5989	II	—
5	2.5	BK	1050	I	—	Ground	5	2.5	BK	1050	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X408 Left Assist Step Jumper Harness to Chassis Harness (BRS)





Connector Part Information

Harness Type: Left Assist Step Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 15419459
Service Connector: 19367561
Description: 8-Way M 2.8 Series, Sealed (D-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

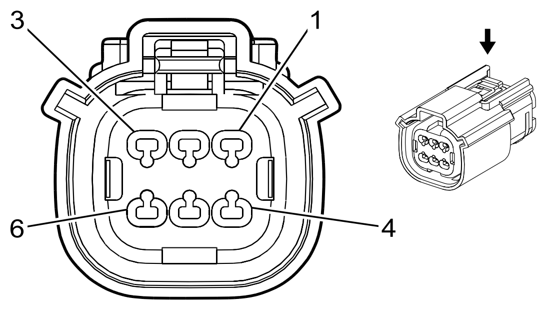
X408 Left Assist Step Jumper Harness to Chassis Harness (BRS)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2	GY	7472	I	—	Articulating Running Boards Motor Left Control Retract	1	2	GY	7472	II	—
2	0.5	VT/RD	7468	I	—	Running Boards Motor Hall Sensor Left 5V Reference	2	0.5	VT/RD	7468	II	—
3	0.5	YE	7467	I	—	Running Boards Motor Hall Sensor Left Signal	3	0.5	YE	7467	II	—
4	0.5	YE/BN	7466	I	—	Running Boards Motor Hall Sensor Left Low Reference	4	0.5	YE/BN	7466	II	—
5	2	WH/BN	7471	I	—	Articulating Running Boards Motor Left Control Extend	5	2	WH/BN	7471	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X408 Left Assist Step Jumper Harness to Chassis Harness (BRS) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	BU	4746	I	—	Articulating Running Board Left Kick Switch Signal	7	0.5	BU/ GN	4746	II	—
8	0.5	BK/ BU	685	I	—	Articulating Running Board Kick Switch Return	8	0.5	BK/ BU	685	II	—

X410 Tail Lamp - Left Harness to Chassis Harness



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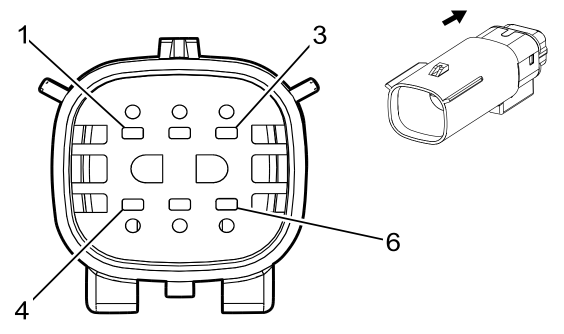


1986159

Connector Part Information

Harness Type: Tail Lamp - Left
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 35014074
Service Connector: 19367742
Description: 6-Way M 150 MX Series, Sealed (BK)

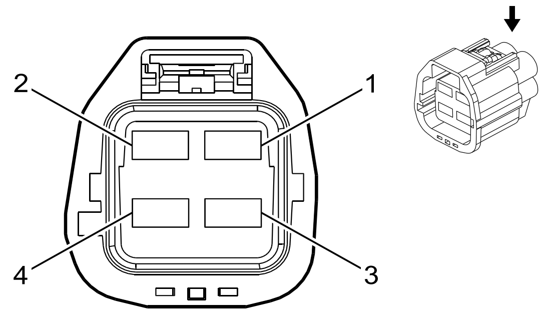
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X410 Tail Lamp - Left Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	VT/GY	709	I	—	Left Park Lamp Control	1	0.75	VT/GY	709	II	—
2	0.5	YE/BK	5356	I	—	Left Tail Lamp Outage Detection Signal	2	0.5	YE/BK	5356	II	—
3	0.5	GY/BU	7762	I	—	Cargo Bed Lamp Control	3	0.5	GY/BU	7762	II	—
4	0.5	—	24	I	—	Backup Lamp Control	4	0.5	GN/WH	24	II	—
5	1	YE/BU	18	I	—	Left Rear Stop/Turn Lamp Control	5	1	YE/BU	18	II	—
6	1	BK	1450	I	—	Ground	6	1	BK	1450	II	—

X415 Rear Axle Harness to Chassis Harness



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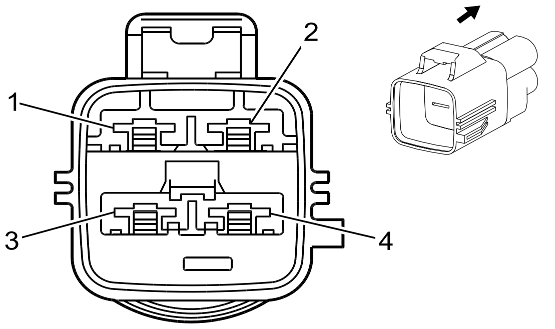


1853524

Connector Part Information

Harness Type: Rear Axle
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 33360098
Service Connector: 19371198
Description: 4-Way M 6.3 Series, Sealed (GY)

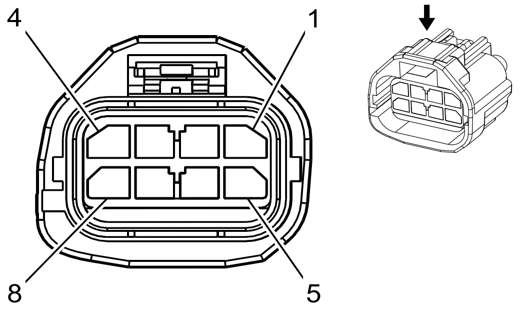
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X415 Rear Axle Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	5	WH	2001	I	—	Park Brake Motor Apply Left Rear Control	1	5	WH	2001	II	—
2	5	GY/BK	4369	I	—	Park Brake Motor Low Reference Left Rear	2	5	GY/BK	4369	II	—
3	5	—	1988	I	—	Park Brake Motor Apply Right Rear Control	3	5	GN/VT	1988	II	—
4	5	GY	4368	I	—	Park Brake Motor Low Reference Right Rear	4	5	GY	4368	II	—

X418 Right Assist Step Jumper Harness to Chassis Harness (BRS)



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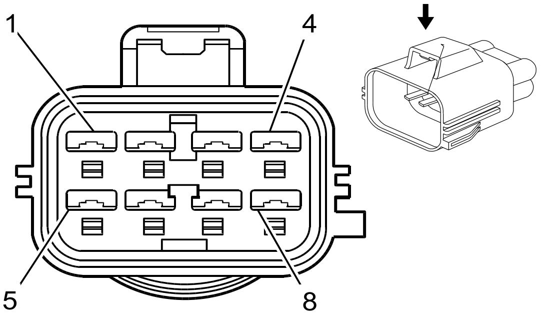


1856785

Connector Part Information

Harness Type: Right Assist Step Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 15419459
Service Connector: 19367561
Description: 8-Way M 2.8 Series, Sealed (D-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

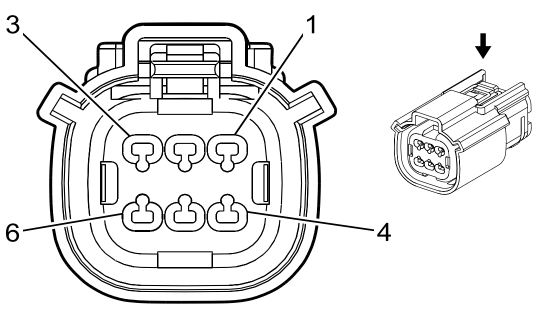
X418 Right Assist Step Jumper Harness to Chassis Harness (BRS)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2	—	7469	I	—	Articulating Running Boards Motor Right Control Retract	1	2	GN	7469	II	—
2	0.5	—	7464	I	—	Running Boards Motor Hall Sensor Right 5V Reference	2	0.5	GN/RD	7464	II	—
3	0.5	VT	7465	I	—	Running Boards Motor Hall Sensor Right Signal	3	0.5	VT	7465	II	—
4	0.5	YE/BK	7463	I	—	Running Boards Motor Hall Sensor Right Low Reference	4	0.5	YE/BK	7463	II	—
5	2	BU	7470	I	—	Articulating Running Boards Motor Right Control Extend	5	2	BU	7470	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X418 Right Assist Step Jumper Harness to Chassis Harness (BRS) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	WH	4747	I	—	Articulating Running Board Right Kick Switch Signal	7	0.5	WH	4747	II	—
8	0.5	BK/ BU	685	I	—	Articulating Running Board Kick Switch Return	8	0.5	BK/ BU	685	II	—

X420 Tail Lamp - Right Harness to Chassis Harness



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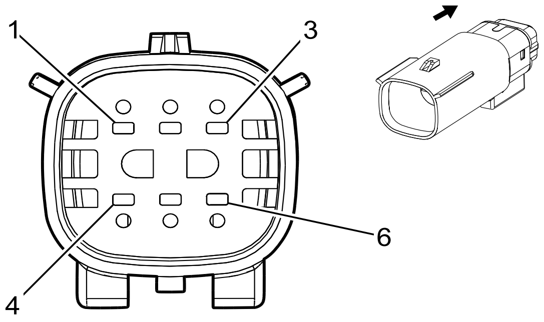


1986159

Connector Part Information

Harness Type: Tail Lamp - Right
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 35014074
Service Connector: 19367742
Description: 6-Way M 150 MX Series, Sealed (BK)

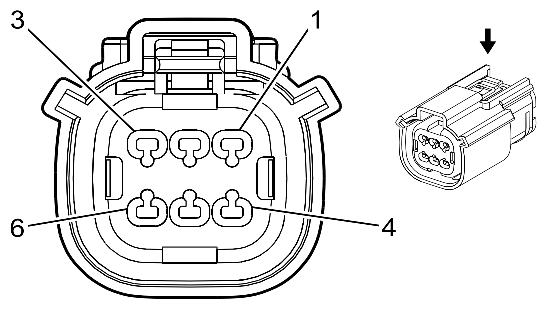
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X420 Tail Lamp - Right Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	GY/BN	309	I	—	Right Park Lamp Control	1	0.75	GY/BN	309	II	—
2	0.5	VT/YE	5357	I	—	Right Tail Lamp Outage Detection Signal	2	0.5	VT/YE	5357	II	—
3	0.5	GY/BU	7762	I	—	Cargo Bed Lamp Control	3	0.5	GY/BU	7762	II	—
4	0.5	—	24	I	—	Backup Lamp Control	4	0.5	GN/WH	24	II	—
5	1	BN	19	I	—	Right Rear Stop/Turn Lamp Control	5	1	BN/GN	19	II	—
6	0.75	BK	1750	I	—	Ground	6	0.75	BK	1750	II	—

X436 Chassis Harness to Rear Axle Harness (Z45)



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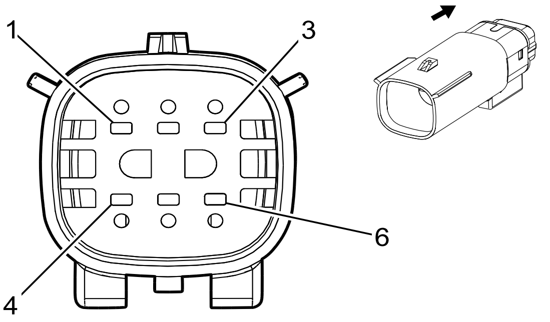

1986159

Connector Part Information

Harness Type: Chassis
OEM Connector: 13609714
Service Connector: 13578533
Description: 6-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Rear Axle
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X436 Chassis Harness to Rear Axle Harness (Z45)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BU/GY	1114	I	—	Left Rear Damping Servo Control	1	0.75	BU/GY	1114	II	—
2	0.5	GN/YE	1616	I	—	Brake Lining Wear Sensor Signal Rear	2	0.5	—	1616	II	—
3	0.75	BN/GN	1118	I	—	Right Rear Damping Servo Control	3	0.75	BN	1118	II	—
4	0.75	GN/VT	1115	I	—	Left Rear Damping Servo Control	4	0.75	—	1115	II	—
5	0.5	BK/WH	1751	I	—	Signal Ground	5	0.5	BK/WH	1751	II	—
6	0.75	GN/GY	1119	I	—	Right Rear Damping Servo Control	6	0.75	—	1119	II	—

X436 Rear Axle Harness to Chassis Harness (-Z45)

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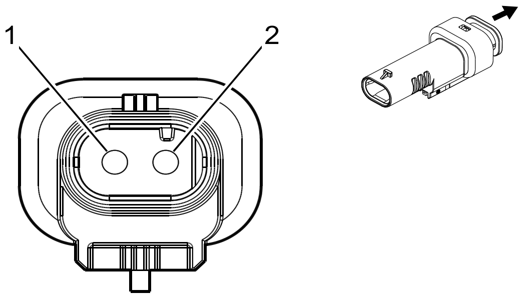


4992757

Connector Part Information

Harness Type: Rear Axle
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Chassis
OEM Connector: 33356666
Service Connector: 19371200
Description: 2-Way M 1.2 MLK Series, Sealed (GY)

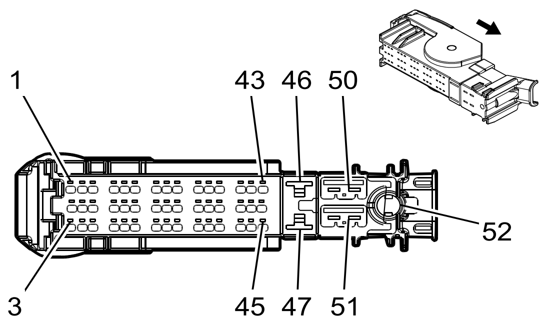
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X436 Rear Axle Harness to Chassis Harness (-Z45)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	—	1616	I	—	Brake Lining Wear Sensor Signal Rear	1	0.5	GN/ YE	1616	II	—
2	0.5	BK/ WH	1751	I	—	Signal Ground	2	0.5	BK/ WH	1751	II	—

X500 Driver Door Harness to Body Harness (Crew Cab)



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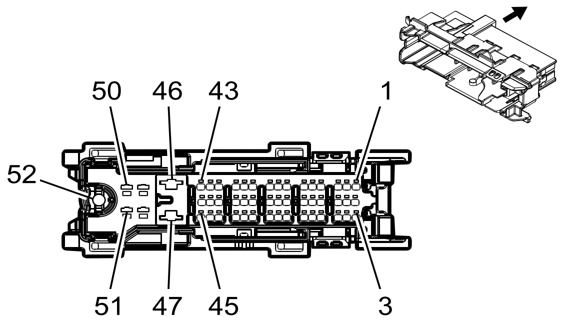


4993484

Connector Part Information

Harness Type: Driver Door

OEM Connector: 35077349

Service Connector: Service by Harness - See Part Catalog

Description: 52-Way F 1.2, 2.8, 6.3, Coaxial Series, Sealed (BK)

Connector Part Information

Harness Type: Body

OEM Connector: 35072682

Service Connector: 13519704

Description: 52-Way M 1.2, 2.8, 6.3, Coaxial Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required
V	13575824	J-35616-5 (PU)	J-38125-11A	7114-4111-02	Yazaki 9	Not Available	Not Available
VI	13580023	J-35616-43 (RD)	J-38125-11A	7114-4122-02	Yazaki 9	A	B
VII	19301536	J-35616-43 (RD)	J-38125-11A	7114-4121-02	Yazaki 9	Not Available	Not Available
VIII	19352074	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IX	19352075	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X500 Driver Door Harness to Body Harness (Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	GY/YE	1760	I	—	Left Side Object Detection LED Control	2	0.35	GY/YE	1760	VIII	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—

X500 Driver Door Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
4	0.5	WH/ VT	968	I	—	—	4	0.35	WH/ VT	968	IX	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.5	YE/ VT	3397	I	—	Passenger Mirror Motor Up (+) Down (-) Control	6	0.5	YE/ VT	3397	VIII	—
7	0.5	WH	3398	I	—	Passenger Mirror Motor Common Control	7	0.5	WH	3398	VIII	—
8	0.5	GN/ BK	3396	I	—	Passenger Mirror Motor Right (+) Left (-) Control	8	0.5	GN/ BK	3396	VIII	—
9	0.5	BU	2082	I	—	Puddle Lamp Control	9	0.35	BU	2082	VIII	—
10	0.5	BK/ BU	5978	I	—	Memory Switch Low Reference	10	0.35	BK/ BU	5978	VIII	—
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—
12	0.5	WH	615	I	—	Memory Seat Switch Signal 1	12	0.35	WH	615	VIII	—
13	0.5	BN/ WH	781	I	—	Driver Door Lock Switch Unlock Signal	13	0.35	BN/ WH	781	VIII	—
14	0.5	BN/ YE	2267	I	—	Mirror Heating Element Control	14	0.5	BN/ YE	2267	VIII	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	0.5	BU/ GN	614	I	—	Memory Seat Switch Set Signal	16	0.35	BU/ GN	614	VIII	—
17 - 18	—	—	—	—	—	Not Occupied	17 - 18	—	—	—	—	—
19	0.35	WH/ YE	7557	I	—	LED Ambient Lighting Control 1	19	0.35	WH/ YE	7557	IX	—
20	0.5	GN/ WH	3570	I	—	Driver Door Handle Switch Signal	20	0.35	GN/ WH	3570	VIII	—
21	0.5	WH/ YE	3574	I	—	Driver Door Open Switch Signal	21	0.35	WH/ YE	3574	VIII	—
22	0.5	BU/ WH	1314	I	—	Left Front Turn Signal Lamp Control	22	0.35	BU/ WH	1314	VIII	—
23	0.5	GY	745	I	—	Left Front Door Ajar Switch Signal	23	—	—	—	—	—

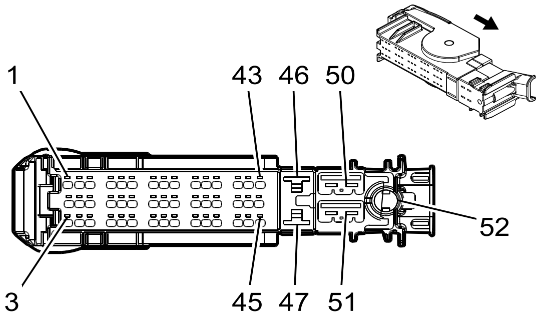
X500 Driver Door Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
24	—	—	—	—	—	Not Occupied	24	—	—	—	—	—
25	0.75	OG/ GN	2132	I	—	Left Front Side Impact Sensing Module Signal	25	0.35	OG/ GN	2132	VIII	—
26	0.5	YE/ WH	1690	I	—	Automatic Day/Night Mirror Signal	26	0.35	YE/ WH	1690	VIII	—
27	0.5	GY/ GN	5996	I	—	Driver Outside Rear View Mirror Puddle Lamp Control	27	0.35	GY/ GN	5996	IX	—
28	0.75	BK/ OG	6628	I	—	Left Front Side Impact Sensing Module Low Reference	28	0.35	BK/ OG	6628	VIII	—
29	0.35	BN/ YE	780	I	—	Driver Door Lock Switch Lock Signal	29	0.35	BN/ YE	780	VIII	—
30	0.5	RD/ VT	1940	I	—	Battery Positive Voltage	30	0.35	RD/ VT	1940	VIII	—
31	0.5	VT/ GY	3561	I	—	Passive Entry Driver Door Antenna Signal Lo	31	0.5	VT/ GY	3561	VIII	—
32	0.5	VT	3560	I	—	Passive Entry Driver Door Antenna Signal Hi	32	0.5	VT	3560	VIII	—
33	0.5	BU/ VT	1124	I	—	Door Lock Key Switch Unlock Signal	33	—	—	—	—	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	GN/ YE	6134	I	—	Local Interconnect Network Serial Data Bus 3	35	0.35	GN/ YE	6134	VIII	—
36 - 41	—	—	—	—	—	Not Occupied	36 - 41	—	—	—	—	—
42	0.5	VT/ GY	709	I	—	Left Park Lamp Control	42	0.5	VT/ GY	709	VIII	—
43	0.5	YE	6817	I	—	LED Backlight Dimming Control	43	0.35	YE	6817	VIII	—
44	0.5	GN/ WH	7530	I	—	Local Interconnect Network Serial Data Bus 8	44	0.35	GN/ WH	7530	IX	—

X500 Driver Door Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
45	0.5	BK/ YE	1691	I	—	Automatic Day/Night Mirror Low Reference	45	0.35	BK/ YE	1691	VIII	—
46	0.75 3	BK BK	1150 1150	II II	— —	Ground Ground	46	3	BK	1150	VI	—
47	2.5	RD/ BU	1842	II	—	Battery Positive Voltage	47	2.5	RD/ BU	1842	VII	—
48	0.75	BN/ YE	294	III	—	Door Lock Actuator Unlock Control	48	0.75	BN/ YE	294	V	—
49	0.75	GY	5911	III	—	Door Lock Actuator Lock Control 2	49	0.75	GY	5911	V	—
50	0.75	BN/ BU	118	III	—	Left Front Speaker Signal (-) 1	50	0.75	BN/ BU	118	V	—
51	0.75	BU	201	III	—	Left Front Speaker Control (+) 1	51	0.75	BU	201	V	—
52	0	Bare	2628	IV	—	Left Side Vision Camera Video Signal (+)	52	—	—	—	—	—

X500 Driver Door Harness to Body Harness (Extended Cab/Regular Cab)



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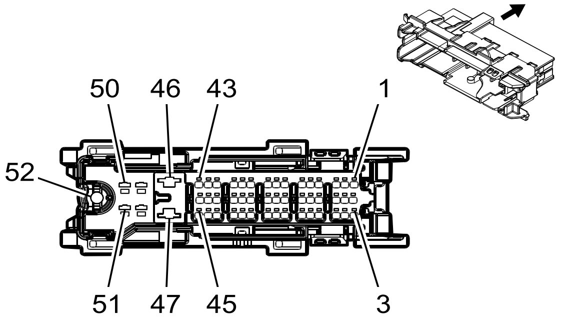


4993484

Connector Part Information

Harness Type: Driver Door

OEM Connector: 35077349

Service Connector: Service by Harness - See Part Catalog

Description: 52-Way F 1.2, 2.8, 6.3, Coaxial Series, Sealed (BK)

Connector Part Information

Harness Type: Body

OEM Connector: 35190453

Service Connector: -

Description: 52-Way M 1.2, 2.8, 6.3, Coaxial Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required
V	13575824	J-35616-5 (PU)	J-38125-11A	7114-4111-02	Yazaki 9	Not Available	Not Available
VI	13580023	J-35616-43 (RD)	J-38125-11A	7114-4122-02	Yazaki 9	A	B
VII	19301536	J-35616-43 (RD)	J-38125-11A	7114-4121-02	Yazaki 9	Not Available	Not Available
VIII	19370818	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IX	84616651	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X500 Driver Door Harness to Body Harness (Extended Cab/Regular Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	GY/ YE	1760	I	—	Left Side Object Detection LED Control	2	0.35	GY/ YE	1760	IX	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—

X500 Driver Door Harness to Body Harness (Extended Cab/Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
4	0.5	WH/ VT	968	I	—	—	4	0.35	WH/ VT	968	VIII	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.5	YE/ VT	3397	I	—	Passenger Mirror Motor Up (+) Down (-) Control	6	0.5	YE/ VT	3397	IX	—
7	0.5	WH	3398	I	—	Passenger Mirror Motor Common Control	7	0.5	WH	3398	IX	—
8	0.5	GN/ BK	3396	I	—	Passenger Mirror Motor Right (+) Left (-) Control	8	0.5	GN/ BK	3396	IX	—
9	0.5	BU	2082	I	—	Puddle Lamp Control	9	0.35	BU	2082	IX	—
10	0.5	BK/ BU	5978	I	—	Memory Switch Low Reference	10	0.35	BK/ BU	5978	IX	—
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—
12	0.5	WH	615	I	—	Memory Seat Switch Signal 1	12	0.35	WH	615	IX	—
13	0.5	BN/ WH	781	I	—	Driver Door Lock Switch Unlock Signal	13	0.35	BN/ WH	781	IX	—
14	0.5	BN/ YE	2267	I	—	Mirror Heating Element Control	14	0.5	BN/ YE	2267	IX	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	0.5	BU/ GN	614	I	—	Memory Seat Switch Set Signal	16	0.35	BU/ GN	614	IX	—
17 - 18	—	—	—	—	—	Not Occupied	17 - 18	—	—	—	—	—
19	0.35	WH/ YE	7557	I	—	LED Ambient Lighting Control 1	19	0.35	WH/ YE	7557	VIII	—
20	0.5	GN/ WH	3570	I	—	Driver Door Handle Switch Signal	20	0.35	GN/ WH	3570	IX	—
21	0.5	WH/ YE	3574	I	—	Driver Door Open Switch Signal	21	0.35	WH/ YE	3574	IX	—
22	0.5	BU/ WH	1314	I	—	Left Front Turn Signal Lamp Control	22	0.35	BU/ WH	1314	IX	—
23	0.5	GY	745	I	—	Left Front Door Ajar Switch Signal	23	0.35	GY	745	IX	—

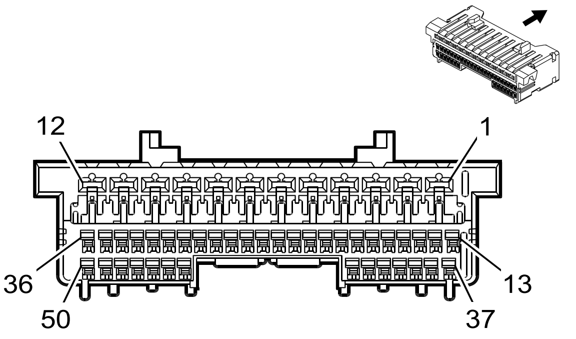
X500 Driver Door Harness to Body Harness (Extended Cab/Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
24	—	—	—	—	—	Not Occupied	24	—	—	—	—	—
25	0.75	OG/ GN	2132	I	—	Left Front Side Impact Sensing Module Signal	25	0.35	OG/ GN	2132	IX	—
26	0.5	YE/ WH	1690	I	—	Automatic Day/Night Mirror Signal	26	0.35	YE/ WH	1690	IX	—
27	0.5	GY/ GN	5996	I	—	Driver Outside Rear View Mirror Puddle Lamp Control	27	0.35	GY/ GN	5996	VIII	—
28	0.75	BK/ OG	6628	I	—	Left Front Side Impact Sensing Module Low Reference	28	0.35	BK/ OG	6628	IX	—
29	0.35	BN/ YE	780	I	—	Driver Door Lock Switch Lock Signal	29	0.35	BN/ YE	780	IX	—
30	0.5	RD/ VT	1940	I	—	Battery Positive Voltage	30	0.35	RD/ VT	1940	IX	—
31	0.5	VT/ GY	3561	I	—	Passive Entry Driver Door Antenna Signal Lo	31	0.5	VT/ GY	3561	IX	—
32	0.5	VT	3560	I	—	Passive Entry Driver Door Antenna Signal Hi	32	0.5	VT	3560	IX	—
33	0.5	BU/ VT	1124	I	—	Door Lock Key Switch Unlock Signal	33	0.35	BU/ VT	1124	IX	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	GN/ YE	6134	I	—	Local Interconnect Network Serial Data Bus 3	35	0.35	GN/ YE	6134	IX	—
36 - 41	—	—	—	—	—	Not Occupied	36 - 41	—	—	—	—	—
42	0.5	VT/ GY	709	I	—	Left Park Lamp Control	42	0.5	VT/ GY	709	IX	—
43	0.5	YE	6817	I	—	LED Backlight Dimming Control	43	0.35	YE	6817	IX	—
44	0.5	GN/ WH	7530	I	—	Local Interconnect Network Serial Data Bus 8	44	0.35	GN/ WH	7530	VIII	—

X500 Driver Door Harness to Body Harness (Extended Cab/Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
45	0.5	BK/YE	1691	I	—	Automatic Day/Night Mirror Low Reference	45	0.35	BK/YE	1691	IX	—
46	0.75	BK	1150	II	—	Ground	46	3	BK	1150	VI	—
47	2.5	RD/BU	1842	II	—	Battery Positive Voltage	47	2.5	RD/BU	1842	VII	—
48	0.75	BN/YE	294	III	—	Door Lock Actuator Unlock Control	48	0.75	BN/YE	294	V	—
49	0.75	GY	5911	III	—	Door Lock Actuator Lock Control 2	49	0.75	GY	5911	V	—
50	0.75	BN/BU	118	III	—	Left Front Speaker Signal (-) 1	50	0.75	BN/BU	118	V	—
51	0.75	BU	201	III	—	Left Front Speaker Control (+) 1	51	0.75	BU	201	V	—
52	—	—	—	—	—	Not Occupied	52	—	—	—	—	—

X505 Driver Door Harness to Driver Door Trim Harness



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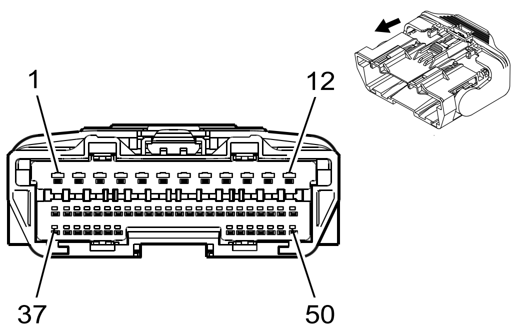


5022037

Connector Part Information

Harness Type: Driver Door
OEM Connector: 33390107
Service Connector: Service by Harness - See Part Catalog
Description: 50-Way F 1.2, 2.8 OCS Series (BK)

Connector Part Information

Harness Type: Driver Door Trim
OEM Connector: 33390111
Service Connector: Service by Harness - See Part Catalog
Description: 50-Way M 1.2, 2.8 OCS Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X505 Driver Door Harness to Driver Door Trim Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 12	—	—	—	—	—	Not Occupied	1 - 12	—	—	—	—	—
13	0.5	GN/WH	7530	I	—	Local Interconnect Network Serial Data Bus 8	13	0.5	GN/WH	7530	II	—
14	0.5	BK/BN	3393	I	—	Driver Mirror Position Sensor Low Reference	14	0.35	BK/BN	3393	II	—
15	0.5	BU/VT	1124	I	—	Door Lock Key Switch Unlock Signal	15	0.35	BU/VT	1124	II	—
16	0.35	GN/WH	3379	I	—	Power Window Switch Driver Up Signal	16	0.5	GN/WH	3379	II	—
17	0.5	RD/VT	1940	I	—	Battery Positive Voltage	17	0.5	RD/VT	1940	II	—

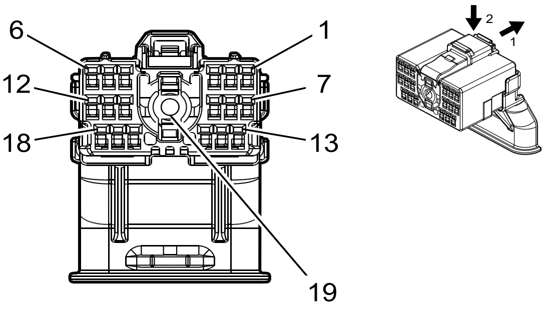
X505 Driver Door Harness to Driver Door Trim Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
18	0.35	GN	3381	I	—	Power Window Switch Driver Express Signal	18	0.35	GN	3381	II	—
19	0.5	WH	3398	I	—	Passenger Mirror Motor Common Control Passenger Mirror Motor Common Control	19	0.35 0.5	WH WH	3398 3398	II II	— -A45
20	0.35	WH/ YE	7557	I	—	LED Ambient Lighting Control 1	20	0.35	WH/ YE	7557	II	—
21	0.35 0.5	BN/ BK BN/ BK	3389 3389	I I	— —	Driver Mirror Motor Right (+) Left (-) Control Driver Mirror Motor Right (+) Left (-) Control	21	0.35	BN/ BK	3389	II	—
22	0.5	WH/ YE	3395	I	—	Driver Mirror Position Sensor Left (-) Right (+) Signal	22	0.35	WH/ YE	3395	II	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.35	WH/ GN	3412	I	—	Driver Mirror Motor Fold In Control	24	0.35	WH/ GN	3412	II	—
25	0.35	WH/ VT	3270	I	—	Driver Door Lock Motor Status Signal	25	0.35	WH/ VT	3270	II	—
26	0.35	GY/ BN	3394	I	—	Driver Mirror Position Sensor Up (+) Down (-) Signal	26	0.35	GY/ BN	3394	II	—
27	0.5	GN/ YE	6134	I	—	Local Interconnect Network Serial Data Bus 3 Local Interconnect Network Serial Data Bus 3	27	0.35 0.5	GN/ YE GN/ YE	6134 6134	II II	— —
28	0.35	YE/ BN	3391	I	—	Driver Mirror Motor Common Control	28	0.35	YE/ BN	3391	II	—
29	—	—	—	—	—	Not Occupied	29	—	—	—	—	—
30	0.75	BK	1150	I	—	Ground Ground	30	0.35 0.5	BK BK	1150 1150	II II	— —

X505 Driver Door Harness to Driver Door Trim Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
31	0.35	GY/WH	3411	I	—	Driver Mirror Motor Fold Out Control	31	0.35	GY/WH	3411	II	—
32	—	—	—	—	—	Not Occupied	32	—	—	—	—	—
33	0.35	VT/BU	3390	I	—	Driver Mirror Motor Up (+) Down (-) Control	33	0.35	VT/BU	3390	II	—
34	0.5	WH	615	I	—	Memory Seat Switch Signal 1	34	0.35	WH	615	II	—
35	—	—	—	—	—	Not Occupied	35	—	—	—	—	—
36	0.5	YE	6817	I	—	LED Backlight Dimming Control LED Backlight Dimming Control	36	0.35 0.5	YE YE	6817 6817	II II	— —
37	—	—	—	—	—	Not Occupied	37	—	—	—	—	—
38	0.35	VT/RD	3392	I	—	Driver Mirror Position Sensor 5V Reference	38	0.5	VT/RD	3392	II	—
39	0.5	BN/WH	781	I	—	Driver Door Lock Switch Unlock Signal	39	0.35	BN/WH	781	II	—
40	0.5	GN/BK	3396	I	—	Passenger Mirror Motor Right (+) Left (-) Control	40	0.35	GN/BK	3396	II	—
41	0.5	YE/VT	3397	I	—	Passenger Mirror Motor Up (+) Down (-) Control	41	0.35	YE/VT	3397	II	—
42	0.5	GY	3380	I	—	Power Window Switch Driver Down Signal	42	0.5	GY	3380	II	—
43	0.5	BU/GN	614	I	—	Memory Seat Switch Set Signal	43	0.35	BU/GN	614	II	—
44	—	—	—	—	—	Not Occupied	44	—	—	—	—	—
45	0.5	BK/BU	5978	I	—	Memory Switch Low Reference	45	0.35	BK/BU	5978	II	—
46	—	—	—	—	—	Not Occupied	46	—	—	—	—	—
47	0.35	BN/YE	780	I	—	Driver Door Lock Switch Lock Signal	47	0.5	BN/YE	780	II	—
48 - 50	—	—	—	—	—	Not Occupied	48 - 50	—	—	—	—	—

X510 Driver Door Harness to Outside Rearview Mirror - Driver Harness



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4991775

Connector Part Information

Harness Type: Driver Door

OEM Connector: 35077331

Service Connector: Service by Harness - See Part Catalog

Description: 19-Way F 1.2 MCON, Coaxial Series, Sealed (BK)

Connector Part Information

Harness Type: Outside Rearview Mirror - Driver

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 19-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

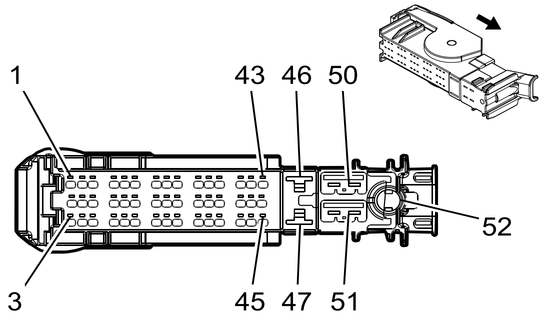
X510 Driver Door Harness to Outside Rearview Mirror - Driver Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35 0.5	BN/BK BN/BK	3389 3389	I I	A45 A45/DZC	Driver Mirror Motor Right (+) Left (-) Control Driver Mirror Motor Right (+) Left (-) Control	1	0.35 0.5	BN/BK BN/BK	3389 3389	III III	A45 A45/DZC
2	0.35	VT/BU	3390	I	—	Driver Mirror Motor Up (+) Down (-) Control	2	0.35	VT/BU	3390	III	—
3	0.35	WH/GN	3412	I	—	Driver Mirror Motor Fold In Control	3	0.35	WH	3412	III	—
4	0.5	GY/YE	1760	I	—	Left Side Object Detection LED Control	4	0.5	GY/YE	1760	III	—

X510 Driver Door Harness to Outside Rearview Mirror - Driver Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
5	0.5 0.5	GY/GN BU	5996 2082	I I	DL3/UV2 DQS	Driver Outside Rear View Mirror Puddle Lamp Control Puddle Lamp Control	5	0.5 0.5	GY/GN BU	5996 2082	III III	DL3/UV2 DQS
6	0.5	WH/YE	3395	I	—	Driver Mirror Position Sensor Left (-) Right (+) Signal	6	0.5	WH/YE	3395	III	—
7	0.5	BN/YE	2267	I	—	Mirror Heating Element Control	7	0.5	BN/YE	2267	III	—
8	0.5	BU/WH	1314	I	—	Left Front Turn Signal Lamp Control	8	0.5	BU/WH	1314	III	—
9	0.75	BK	1150	I	—	Ground	9	0.75	BK	1150	III	—
10	0.35	VT/RD	3392	I	—	Driver Mirror Position Sensor 5V Reference	10	0.35	VT/RD	3392	III	—
11	0.35	GY/BN	3394	I	—	Driver Mirror Position Sensor Up (+) Down (-) Signal	11	0.35	GY/BN	3394	III	—
12	0.5	BK/YE	1691	I	—	Automatic Day/Night Mirror Low Reference	12	0.5	BK/YE	1691	III	—
13	0.5 0.5	BU VT/GY	2082 709	I I	DEZ/DLF DPO/DQS	Puddle Lamp Control Left Park Lamp Control	13	0.5 0.5	BU VT/GY	2082 709	III III	DEZ/DLF DPO/DQS
14	0.35	YE/BN	3391	I	—	Driver Mirror Motor Common Control	14	0.35	YE/BN	3391	III	—
15	0.35	GY/WH	3411	I	—	Driver Mirror Motor Fold Out Control	15	0.35	GY/WH	3411	III	—
16	0.5	WH/VT	968	I	—	—	16	0.5	WH/VT	968	III	—
17	0.5	YE/WH	1690	I	—	Automatic Day/Night Mirror Signal	17	0.5	YE/WH	1690	III	—
18	0.5	BK/BN	3393	I	—	Driver Mirror Position Sensor Low Reference	18	0.5	BK/BN	3393	III	—
19	0	Bare	2628	II	—	Left Side Vision Camera Video Signal (+)	19	0	—	2628	III	—

X600 Passenger Door Harness to Body Harness (Crew Cab)



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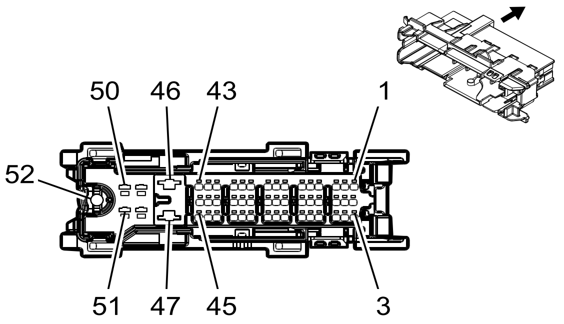


4993484

Connector Part Information

Harness Type: Passenger Door

OEM Connector: 35077349

Service Connector: Service by Harness - See Part Catalog

Description: 52-Way F 1.2, 2.8, 6.3, Coaxial Series, Sealed (BK)

Connector Part Information

Harness Type: Body

OEM Connector: 35072682

Service Connector: 13519704

Description: 52-Way M 1.2, 2.8, 6.3, Coaxial Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required
V	13575824	J-35616-5 (PU)	J-38125-11A	7114-4111-02	Yazaki 9	Not Available	Not Available
VI	13580023	J-35616-43 (RD)	J-38125-11A	7114-4122-02	Yazaki 9	A	B
VII	19301536	J-35616-43 (RD)	J-38125-11A	7114-4121-02	Yazaki 9	Not Available	Not Available
VIII	19352074	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X600 Passenger Door Harness to Body Harness (Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
4	0.5	WH/ VT	968	I	—	—	4	0.35	WH/ VT	968	VIII	—
5	0.5	GY	746	I	—	Right Front Door Ajar Switch Signal	5	—	—	—	—	—

X600 Passenger Door Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	YE/ VT	3397	I	—	Passenger Mirror Motor Up (+) Down (-) Control	6	0.5	YE/ VT	3397	VIII	—
7	0.5	WH	3398	I	—	Passenger Mirror Motor Common Control	7	0.5	WH	3398	VIII	—
8	0.5	GN/ BK	3396	I	—	Passenger Mirror Motor Right (+) Left (-) Control	8	0.5	GN/ BK	3396	VIII	—
9	0.5	BU	2082	I	—	Puddle Lamp Control	9	0.35	BU	2082	VIII	—
10 - 12	—	—	—	—	—	Not Occupied	10 - 12	—	—	—	—	—
13	0.5	BN/ VT	245	I	—	Passenger Door Lock Switch Unlock Control	13	0.35	BN/ VT	245	VIII	—
14 - 18	—	—	—	—	—	Not Occupied	14 - 18	—	—	—	—	—
19	0.35	WH/ YE	7557	I	—	LED Ambient Lighting Control 1	19	0.35	WH/ YE	7557	VIII	—
20	0.5	VT/ WH	3571	I	—	Passenger Door Handle Switch Signal	20	0.35	VT/ WH	3571	VIII	—
21	0.5	GY	1761	I	—	Right Side Object Detection LED Control	21	0.35	GY	1761	VIII	—
22	0.5	GN/ VT	1315	I	—	Right Front Turn Signal Lamp Control	22	0.35	GN/ VT	1315	VIII	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.35	BK	1150	I	—	Ground	24	0.35	BK	1150	VIII	—
25	0.75	BN/ OG	2134	I	—	Right Front Side Impact Sensing Module Signal	25	0.35	BN/ OG	2134	VIII	—
26	—	—	—	—	—	Not Occupied	26	—	—	—	—	—
27	0.5	GY/ GN	5996	I	—	Driver Outside Rear View Mirror Puddle Lamp Control	27	0.35	GY/ GN	5996	VIII	—
28	0.75	BK/ OG	6629	I	—	Right Front Side Impact Sensing Module Low Reference	28	0.35	BK/ OG	6629	VIII	—

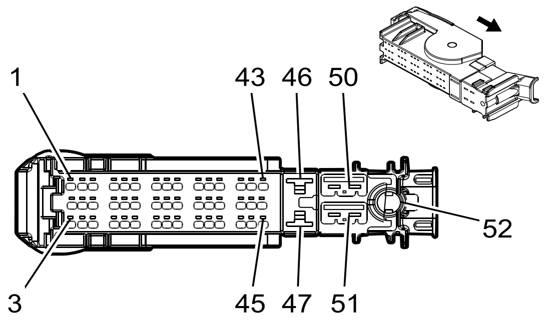
X600 Passenger Door Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
29	0.5	YE/ VT	244	I	—	Passenger Door Lock Switch Lock Control	29	0.35	YE/ VT	244	VIII	—
30	—	—	—	—	—	Not Occupied	30	—	—	—	—	—
31	0.5	GN/ BK	3563	I	—	Passive Entry Passenger Door Antenna Signal Lo	31	0.5	GN/ BK	3563	VIII	—
32	0.5	GN/ YE	3562	I	—	Passive Entry Passenger Door Antenna Signal Hi	32	0.5	GN/ YE	3562	VIII	—
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
34	0.35	BK/ GN	580	I	—	Engine Control Sensors Low Reference (2)	34	0.35	BK/ GN	580	VIII	—
35	0.5 0.35	GN/ YE GN/ YE	6134 6134	I I	AED AEF	Local Interconnect Network Serial Data Bus 3 Local Interconnect Network Serial Data Bus 3	35	0.35	GN/ YE	6134	VIII	—
36	0.35	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	36	0.35	BU/ GY	636	VIII	—
37	—	—	—	—	—	Not Occupied	37	—	—	—	—	—
38	0.5	BN/ YE	2267	I	—	Mirror Heating Element Control	38	0.5	BN/ YE	2267	VIII	—
39	0.5	GY/ BN	309	I	—	Right Park Lamp Control	39	0.5	GY/ BN	309	VIII	—
40 - 42	—	—	—	—	—	Not Occupied	40 - 42	—	—	—	—	—
43	0.5	YE	6817	I	—	LED Backlight Dimming Control	43	0.35	YE	6817	VIII	—
44	0.5	GN/ WH	7530	I	—	Local Interconnect Network Serial Data Bus 8	44	0.35	GN/ WH	7530	VIII	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—

X600 Passenger Door Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
46	0.75 3	BK BK	1250 1250	II II	— DEZ/DLF	Ground Ground	46	3	BK	1250	VI	—
47	2.5	RD/ WH	1340	II	—	Battery Positive Voltage	47	2.5	RD/ WH	1340	VII	—
48	0.75	BN/ YE	294	III	—	Door Lock Actuator Unlock Control	48	0.75	BN/ YE	294	V	—
49	0.75	GY	295	III	—	Door Lock Actuator Lock Control	49	0.75	GY	295	V	—
50	0.75	YE/ BK	117	III	—	Right Front Speaker Signal (-) 1	50	0.75	YE/ BK	117	V	—
51	0.75	YE	200	III	—	Right Front Speaker Control (+) 1	51	0.75	YE	200	V	—
52	0	Bare	2627	IV	—	Right Side Vision Camera Video Signal (+)	52	—	—	—	—	—

X600 Passenger Door Harness to Body Harness (Extended Cab/Regular Cab)



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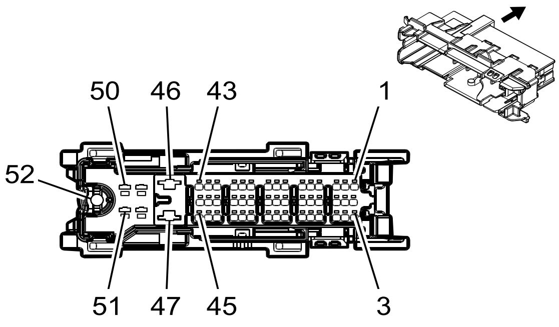


4993484

Connector Part Information

Harness Type: Passenger Door

OEM Connector: 35077349

Service Connector: Service by Harness - See Part Catalog

Description: 52-Way F 1.2, 2.8, 6.3, Coaxial Series, Sealed (BK)

Connector Part Information

Harness Type: Body

OEM Connector: 35190453

Service Connector: -

Description: 52-Way M 1.2, 2.8, 6.3, Coaxial Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required
V	13575824	J-35616-5 (PU)	J-38125-11A	7114-4111-02	Yazaki 9	Not Available	Not Available
VI	13580023	J-35616-43 (RD)	J-38125-11A	7114-4122-02	Yazaki 9	A	B
VII	19301536	J-35616-43 (RD)	J-38125-11A	7114-4121-02	Yazaki 9	Not Available	Not Available
VIII	84616651	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X600 Passenger Door Harness to Body Harness (Extended Cab/Regular Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
4	0.5	WH/VT	968	I	—	—	4	0.35	WH/VT	968	VIII	—
5	0.5	GY	746	I	—	Right Front Door Ajar Switch Signal	5	0.35	GY	746	VIII	—

X600 Passenger Door Harness to Body Harness (Extended Cab/Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	YE/VT	3397	I	—	Passenger Mirror Motor Up (+) Down (-) Control	6	0.5	YE/VT	3397	VIII	—
7	0.5	WH	3398	I	—	Passenger Mirror Motor Common Control	7	0.5	WH	3398	VIII	—
8	0.5	GN/BK	3396	I	—	Passenger Mirror Motor Right (+) Left (-) Control	8	0.5	GN/BK	3396	VIII	—
9	0.5	BU	2082	I	—	Puddle Lamp Control	9	0.35	BU	2082	VIII	—
10 - 12	—	—	—	—	—	Not Occupied	10 - 12	—	—	—	—	—
13	0.5	BN/VT	245	I	—	Passenger Door Lock Switch Unlock Control	13	0.35	BN/VT	245	VIII	—
14 - 18	—	—	—	—	—	Not Occupied	14 - 18	—	—	—	—	—
19	0.35	WH/YE	7557	I	—	LED Ambient Lighting Control 1	19	0.35	WH/YE	7557	VIII	—
20	0.5	VT/WH	3571	I	—	Passenger Door Handle Switch Signal	20	0.35	VT/WH	3571	VIII	—
21	0.5	GY	1761	I	—	Right Side Object Detection LED Control	21	0.35	GY	1761	VIII	—
22	0.5	GN/VT	1315	I	—	Right Front Turn Signal Lamp Control	22	0.35	GN/VT	1315	VIII	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.35	BK	1150	I	—	Ground Ground	24	0.5 0.35	BK BK	1150 1150	VIII VIII	— —
25	0.75	BN/OG	2134	I	—	Right Front Side Impact Sensing Module Signal	25	0.35	BN/OG	2134	VIII	—
26	—	—	—	—	—	Not Occupied	26	—	—	—	—	—
27	0.5	GY/GN	5996	I	—	Driver Outside Rear View Mirror Puddle Lamp Control	27	0.35	GY/GN	5996	VIII	—
28	0.75	BK/OG	6629	I	—	Right Front Side Impact Sensing Module Low Reference	28	0.35	BK/OG	6629	VIII	—

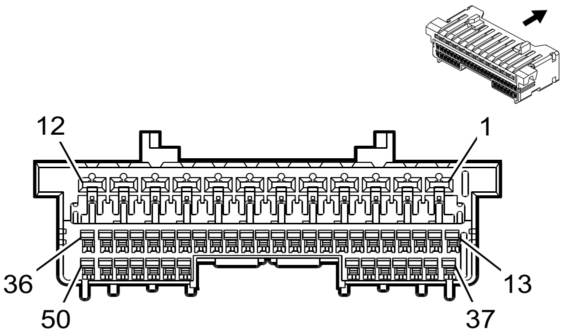
X600 Passenger Door Harness to Body Harness (Extended Cab/Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
29	0.5	YE/ VT	244	I	—	Passenger Door Lock Switch Lock Control	29	0.35	YE/ VT	244	VIII	—
30	—	—	—	—	—	Not Occupied	30	—	—	—	—	—
31	0.5	GN/ BK	3563	I	—	Passive Entry Passenger Door Antenna Signal Lo	31	0.5	GN/ BK	3563	VIII	—
32	0.5	GN/ YE	3562	I	—	Passive Entry Passenger Door Antenna Signal Hi	32	0.5	GN/ YE	3562	VIII	—
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
34	0.35	BK/ GN	580	I	—	Engine Control Sensors Low Reference (2)	34	0.35	BK/ GN	580	VIII	—
35	0.35	GN/ YE	6134	I	—	Local Interconnect Network Serial Data Bus 3	35	0.35	GN/ YE	6134	VIII	—
36	0.35	BU/ GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	36	0.35	BU/ GY	636	VIII	—
37	—	—	—	—	—	Not Occupied	37	—	—	—	—	—
38	0.5	BN/ YE	2267	I	—	Mirror Heating Element Control	38	0.5	BN/ YE	2267	VIII	—
39	0.5	GY/ BN	309	I	—	Right Park Lamp Control	39	0.5	GY/ BN	309	VIII	—
40 - 42	—	—	—	—	—	Not Occupied	40 - 42	—	—	—	—	—
43	0.5	YE	6817	I	—	LED Backlight Dimming Control	43	0.35	YE	6817	VIII	—
44	0.5	GN/ WH	7530	I	—	Local Interconnect Network Serial Data Bus 8	44	0.35	GN/ WH	7530	VIII	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.75 3	BK BK	1250 1250	II II	— —	Ground Ground	46	3	BK	1250	VI	—

X600 Passenger Door Harness to Body Harness (Extended Cab/Regular Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
47	2.5	RD/ WH	1340	II	—	Battery Positive Voltage	47	2.5	RD/ WH	1340	VII	—
48	0.75	BN/ YE	294	III	—	Door Lock Actuator Unlock Control	48	0.75	BN/ YE	294	V	—
49	0.75	GY	295	III	—	Door Lock Actuator Lock Control	49	0.75	GY	295	V	—
50	0.75	YE/ BK	117	III	—	Right Front Speaker Signal (-) 1	50	0.75	YE/ BK	117	V	—
51	0.75	YE	200	III	—	Right Front Speaker Control (+) 1	51	0.75	YE	200	V	—
52	—	—	—	—	—	Not Occupied	52	—	—	—	—	—

X605 Passenger Door Harness to Passenger Door Trim Harness



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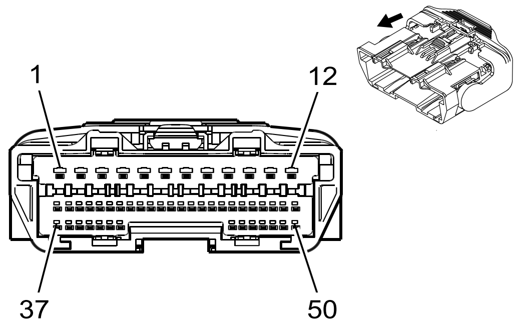


5022037

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 33390107
Service Connector: Service by Harness - See Part Catalog
Description: 50-Way F 1.2, 2.8 OCS Series (BK)

Connector Part Information

Harness Type: Passenger Door Trim
OEM Connector: 33390111
Service Connector: Service by Harness - See Part Catalog
Description: 50-Way M 1.2, 2.8 OCS Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X605 Passenger Door Harness to Passenger Door Trim Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 2	—	—	—	—	—	Not Occupied	1 - 2	—	—	—	—	—
3	2.5	RD/WH	1340	II	—	Battery Positive Voltage	3	2.5	RD/WH	1340	IV	—
4 - 6	—	—	—	—	—	Not Occupied	4 - 6	—	—	—	—	—
7	1.5 2	GN/GY GN/GY	3387 3387	II II	— AED	Power Window Motor Passenger Up Control Power Window Motor Passenger Up Control	7	2.5	GN/GY	3387	IV	—

X605 Passenger Door Harness to Passenger Door Trim Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	1.5 2	YE/BU YE/BU	3388 3388	II II	— AED	Power Window Motor Passenger Down Control Power Window Motor Passenger Down Control	8	2.5	YE/BU	3388	IV	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	2.5	BK	1250	II	—	Ground	10	3	BK	1250	IV	—
11 - 12	—	—	—	—	—	Not Occupied	11 - 12	—	—	—	—	—
13	0.5	WH	3398	I	—	Passenger Mirror Motor Common Control	13	0.5	WH	3398	III	—
14	0.5	VT/WH	3403	I	—	Passenger Mirror Position Sensor Left (-) Right (+) Signal	14	0.35	VT/WH	3403	III	—
15	0.35	YE/VT	3397	I	—	Passenger Mirror Motor Up (+) Down (-) Control	15	0.35	YE/VT	3397	III	—
16	0.5	GN/BK	3396	I	—	Passenger Mirror Motor Right (+) Left (-) Control	16	0.35	GN/BK	3396	III	—
17	0.5	YE	6817	I	—	LED Backlight Dimming Control LED Backlight Dimming Control	17	0.35	YE	6817	III	—
18	0.35 0.5	BK/GN BK/GN	3400 3400	I I	— —	Passenger Mirror Position Sensor Low Reference Passenger Mirror Position Sensor Low Reference	18	0.35	BK/GN	3400	III	—
19	0.5	GN/WH	7530	I	—	Local Interconnect Network Serial Data Bus 8	19	0.35	GN/WH	7530	III	—

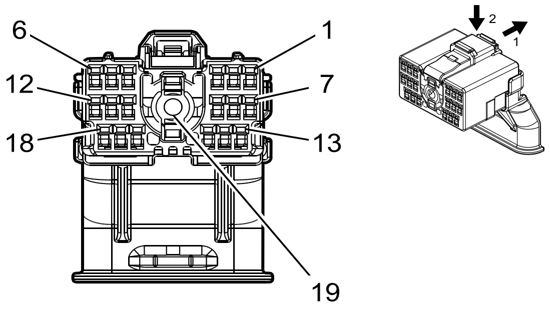
X605 Passenger Door Harness to Passenger Door Trim Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
20	0.5	BN/ VT	245	I	—	Passenger Door Lock Switch Unlock Control	20	0.35	BN/ VT	245	III	—
21	0.35	YE/ RD	3399	I	—	Passenger Mirror Position Sensor 5V Reference	21	0.35	YE/ RD	3399	III	—
22	0.35	BK	1150	I	—	Ground	22	0.35	BK	1250	III	—
23	0.5	YE/ VT	244	I	—	Passenger Door Lock Switch Lock Control	23	0.35	YE/ VT	244	III	—
24	0.35	WH/ YE	7557	I	—	LED Ambient Lighting Control 1	24	0.35	WH/ YE	7557	III	—
25	0.35	YE/ BK	3384	I	—	Power Window Switch Passenger Up Signal	25	0.5	YE/ BK	3384	III	—
26	0.5	YE/ WH	3413	I	—	Passenger Mirror Motor Fold Out Control	26	0.5	YE/ WH	3413	III	—
27	0.5	BU/ GY	3414	I	—	Passenger Mirror Motor Fold In Control	27	0.5	BU/ GY	3414	III	—
28	0.5	BN/ YE	3385	I	—	Power Window Switch Passenger Down Signal	28	0.5	BN/ YE	3385	III	—
29	0.5	GY	746	I	—	Right Front Door Ajar Switch Signal	29	0.5	GY	746	III	—
30	0.35	BU/ YE	3401	I	—	Passenger Mirror Position Sensor Up (+) Down (-) Signal	30	0.35	BU/ YE	3401	III	—
31 - 33	—	—	—	—	—	Not Occupied	31 - 33	—	—	—	—	—
34	0.35	VT/ GY	3386	I	—	Power Window Switch Passenger Express Signal	34	0.35	VT/ GY	3386	III	—

X605 Passenger Door Harness to Passenger Door Trim Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
35	0.5	GN/YE	6134	I	—	Local Interconnect Network Serial Data Bus 3 Local Interconnect Network Serial Data Bus 3	35	0.35 0.5	GN/YE GN/YE	6134 6134	III III	AED —
36 - 50	—	—	—	—	—	Not Occupied	36 - 50	—	—	—	—	—

X610 Passenger Door Harness to Outside Rear View Mirror - Passenger Harness



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4991775

Connector Part Information

Harness Type: Passenger Door

OEM Connector: 35077331

Service Connector: Service by Harness - See Part Catalog

Description: 19-Way F 1.2 MCON, Coaxial Series, Sealed (BK)

Connector Part Information

Harness Type: Outside Rear View Mirror - Passenger

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 19-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X610 Passenger Door Harness to Outside Rear View Mirror - Passenger Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN/BK	3396	I	—	Passenger Mirror Motor Right (+) Left (-) Control	1	0.5	—	3396	III	—
2	0.35 0.5	YE/VT YE/VT	3397 3397	I I	A45 -A45	Passenger Mirror Motor Up (+) Down (-) Control Passenger Mirror Motor Up (+) Down (-) Control	2	0.35 0.5	YE/VT YE/VT	3397 3397	III III	A45 -A45
3	0.5	BU/GY	3414	I	—	Passenger Mirror Motor Fold In Control	3	0.5	BU/GY	3414	III	—
4	0.5	GY	1761	I	—	Right Side Object Detection LED Control	4	0.5	GY	1761	III	—

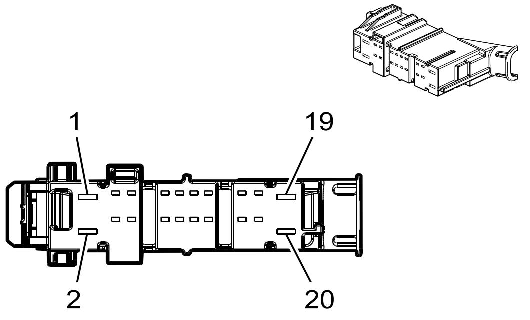
X610 Passenger Door Harness to Outside Rear View Mirror - Passenger Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
5	0.5 0.5	GY/GN BU	5996 2082	I I	DL3 /UV2 DQS	Driver Outside Rear View Mirror Puddle Lamp Control Puddle Lamp Control	5	0.5 0.5	GY/GN BU	5996 2082	III III	DL3 /UV2 DQS
6	0.5	VT/WH	3403	I	—	Passenger Mirror Position Sensor Left (-) Right (+) Signal	6	0.5	VT/WH	3403	III	—
7	0.5	BN/YE	2267	I	—	Mirror Heating Element Control	7	0.5	BN/YE	2267	III	—
8	0.5	GN/VT	1315	I	—	Right Front Turn Signal Lamp Control	8	0.5	—	1315	III	—
9	0.75	BK	1250	I	—	Ground	9	0.75	BK	1250	III	—
10	0.35	YE/RD	3399	I	—	Passenger Mirror Position Sensor 5V Reference	10	0.35	YE/RD	3399	III	—
11	0.35	BU/YE	3401	I	—	Passenger Mirror Position Sensor Up (+) Down (-) Signal	11	0.35	BU/YE	3401	III	—
12	0.35	BK/GN	580	I	—	Engine Control Sensors Low Reference (2)	12	0.35	BK	580	III	—
13	0.5 0.5	BU GY/BN	2082 309	I I	DEZ/DLF DPO/DQS	Puddle Lamp Control Right Park Lamp Control	13	0.5 0.5	BU GY/BN	2082 309	III III	DEZ/DLF DPO/DQS
14	0.5	WH	3398	I	—	Passenger Mirror Motor Common Control	14	0.5	WH	3398	III	—
15	0.5	YE/WH	3413	I	—	Passenger Mirror Motor Fold Out Control	15	0.5	YE/WH	3413	III	—
16	0.5	WH/VT	968	I	—	—	16	0.5	WH/VT	968	III	—
17	0.35	BU/GY	636	I	—	Outside Ambient Air Temperature Sensor Signal	17	0.35	BU/GY	636	III	—

X610 Passenger Door Harness to Outside Rear View Mirror - Passenger Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
18	0.35 0.5	BK/GN BK/GN	3400 3400	I I	A45 DZC	Passenger Mirror Position Sensor Low Reference Passenger Mirror Position Sensor Low Reference	18	0.35 0.5	BK/GN BK	3400 3400	III III	A45 DZC
19	0	Bare	2627	II	—	Right Side Vision Camera Video Signal (+)	19	0	—	2627	III	—

X700 Left Rear Door Harness to Body Harness (Crew Cab)



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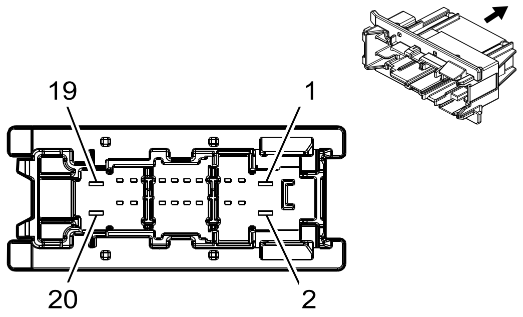


4663657

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 33303652
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.2 MCON, 2.8 MCP Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 33303657
Service Connector: 13509580
Description: 20-Way M 1.2 MCON, 2.8 MCP Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	13586064	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	19352074	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
V	19352075	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

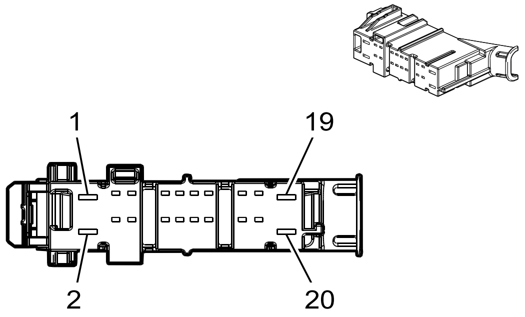
X700 Left Rear Door Harness to Body Harness (Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/BU	1842	II	—	Battery Positive Voltage	1	2.5	RD/BU	1842	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.75	BN/YE	294	I	—	Door Lock Actuator Unlock Control	3	0.75	BN/YE	294	V	—
4 - 5	—	—	—	—	—	Not Occupied	4 - 5	—	—	—	—	—
6	0.5	PK	6157	I	—	Left Rear Door Handle Switch Signal	6	0.35	BN/YE	6157	IV	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X700 Left Rear Door Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	OG/ BU	6622	I	—	Left Rear Side Impact Sensing Module Signal	9	0.35	OG/ BU	6622	IV	—
10	0.5	BK/ OG	6623	I	—	Left Rear Side Impact Sensing Module Low Reference	10	0.35	BK/ OG	6623	IV	—
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—
12	0.5	GN/ GY	6135	I	—	Local Interconnect Network Serial Data Bus 4	12	0.35	GN/ GY	6135	IV	—
13	0.5	GN/ BK	116	I	—	Left Rear Speaker Signal (-)	13	0.5	GN/ BK	116	IV	—
14	0.5	GN	199	I	—	Left Rear Speaker Control (+)	14	0.5	GN	199	IV	—
15 - 16	—	—	—	—	—	Not Occupied	15 - 16	—	—	—	—	—
17	0.75	GY	295	I	—	Door Lock Actuator Lock Control	17	0.75	GY	295	V	—
18 - 19	—	—	—	—	—	Not Occupied	18 - 19	—	—	—	—	—
20	2.5	BK	1150	II	—	Ground	20	2.5	BK	1150	III	—

X700 Left Rear Door Harness to Body Harness (Extended Cab)



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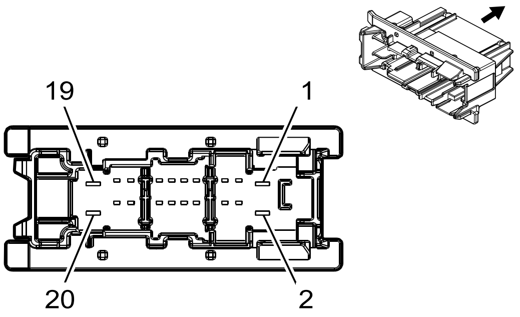


4663657

Connector Part Information

Harness Type: Left Rear Door
OEM Connector: 33303652
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.2 MCON, 2.8 MCP Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 35215020
Service Connector: 13527239
Description: 20-Way M 1.2 MCON, 2.8 MCP Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	13586064	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	19332366	J-35616-17 (LT GN)	J-38125-212	Not Available	Not Available	Not Available	Not Available
V	19370818	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

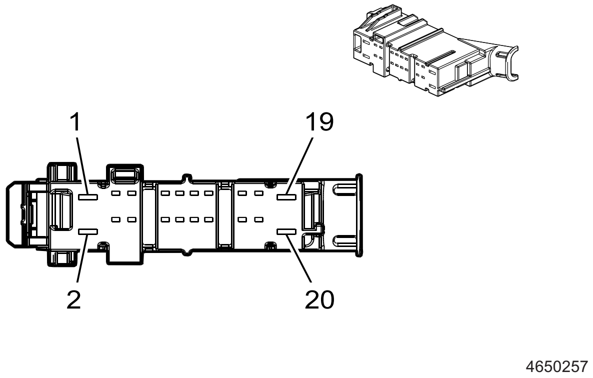
X700 Left Rear Door Harness to Body Harness (Extended Cab)

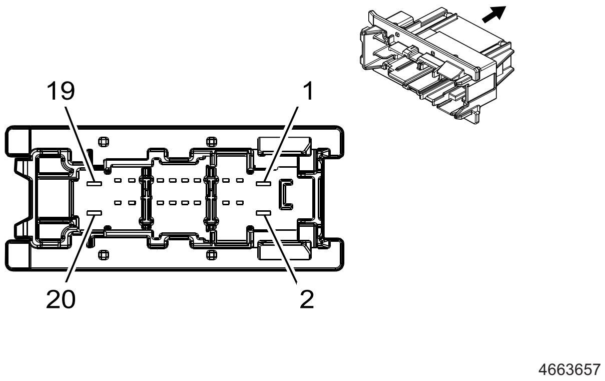
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/ BU	1842	II	—	Battery Positive Voltage	1	2.5	RD/ BU	1842	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.75	BN/ YE	294	I	—	Door Lock Actuator Unlock Control	3	0.75	BN/ YE	294	V	—
4 - 5	—	—	—	—	—	Not Occupied	4 - 5	—	—	—	—	—
6	0.5	PK	6157	I	—	Left Rear Door Handle Switch Signal	6	0.35	BN/ YE	6157	IV	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X700 Left Rear Door Harness to Body Harness (Extended Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	OG/ BU	6622	I	—	Left Rear Side Impact Sensing Module Signal	9	0.35	OG/ BU	6622	IV	—
10	0.5	BK/ OG	6623	I	—	Left Rear Side Impact Sensing Module Low Reference	10	0.35	BK/ OG	6623	IV	—
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—
12	0.5	GN/ GY	6135	I	—	Local Interconnect Network Serial Data Bus 4	12	0.35	GN/ GY	6135	IV	—
13	0.5	GN/ BK	116	I	—	Left Rear Speaker Signal (-)	13	0.5	GN/ BK	116	IV	—
14	0.5	GN	199	I	—	Left Rear Speaker Control (+)	14	0.5	GN	199	IV	—
15 - 16	—	—	—	—	—	Not Occupied	15 - 16	—	—	—	—	—
17	0.75	GY	295	I	—	Door Lock Actuator Lock Control	17	0.75	GY	295	V	—
18 - 19	—	—	—	—	—	Not Occupied	18 - 19	—	—	—	—	—
20	2.5	BK	1150	II	—	Ground	20	2.5	BK	1150	III	—

X800 Right Rear Door Harness to Body Harness (Crew Cab)





Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 33303652
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.2 MCON, 2.8 MCP Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 33303657
Service Connector: 13509580
Description: 20-Way M 1.2 MCON, 2.8 MCP Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	13586064	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	19352074	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
V	19352075	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

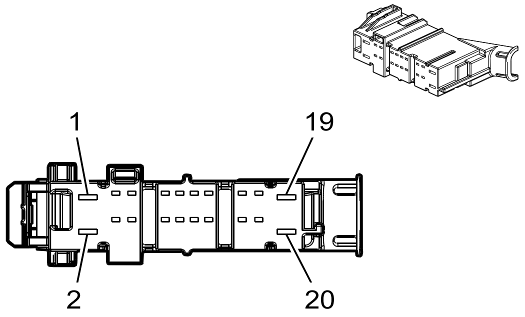
X800 Right Rear Door Harness to Body Harness (Crew Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/WH	1340	II	—	Battery Positive Voltage	1	2.5	RD/WH	1340	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.75	BN/YE	294	I	—	Door Lock Actuator Unlock Control	3	0.75	BN/YE	294	V	—
4 - 5	—	—	—	—	—	Not Occupied	4 - 5	—	—	—	—	—
6	0.5	YE/GY	6158	I	—	Right Rear Door Handle Switch Signal	6	0.35	YE/GY	6158	IV	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X800 Right Rear Door Harness to Body Harness (Crew Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	OG/VT	6626	I	—	Right Rear Side Impact Sensing Module Signal	9	0.35	OG/WH	6626	IV	—
10	0.5	BK/OG	6627	I	—	Right Rear Side Impact Sensing Module Low Reference	10	0.35	BK/OG	6627	IV	—
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—
12	0.5	GN/GY	6135	I	—	Local Interconnect Network Serial Data Bus 4	12	0.35	GN/GY	6135	IV	—
13	0.5	BU/BK	115	I	—	Right Rear Speaker Signal (-)	13	0.5	BU/BK	115	IV	—
14	0.5	WH	46	I	—	Right Rear Speaker Control (+)	14	0.5	WH	46	IV	—
15 - 16	—	—	—	—	—	Not Occupied	15 - 16	—	—	—	—	—
17	0.75	GY	295	I	—	Door Lock Actuator Lock Control	17	0.75	GY	295	V	—
18 - 19	—	—	—	—	—	Not Occupied	18 - 19	—	—	—	—	—
20	2.5	BK	1250	II	—	Ground	20	2.5	BK	1250	III	—

X800 Right Rear Door Harness to Body Harness (Extended Cab)



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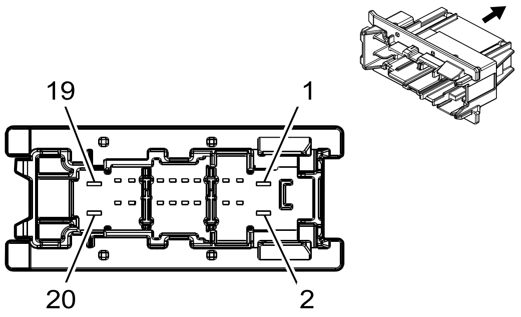


4663657

Connector Part Information

Harness Type: Right Rear Door
OEM Connector: 33303652
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.2 MCON, 2.8 MCP Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 35215020
Service Connector: 13527239
Description: 20-Way M 1.2 MCON, 2.8 MCP Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	13586064	J-35616-5 (PU)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	19332366	J-35616-17 (LT GN)	J-38125-212	Not Available	Not Available	Not Available	Not Available
V	19370818	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

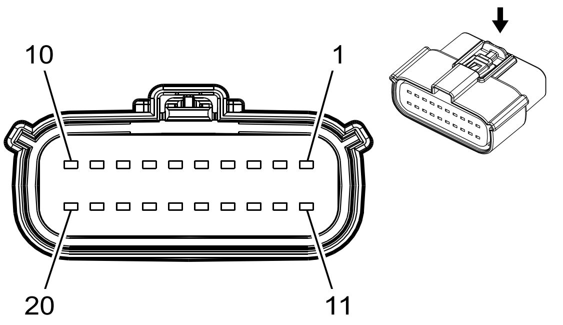
X800 Right Rear Door Harness to Body Harness (Extended Cab)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/ WH	1340	II	—	Battery Positive Voltage	1	2.5	RD/ WH	1340	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.75	BN/ YE	294	I	—	Door Lock Actuator Unlock Control	3	0.75	BN/ YE	294	V	—
4 - 5	—	—	—	—	—	Not Occupied	4 - 5	—	—	—	—	—
6	0.5	YE/ GY	6158	I	—	Right Rear Door Handle Switch Signal	6	0.35	YE/ GY	6158	IV	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X800 Right Rear Door Harness to Body Harness (Extended Cab) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	OG/ VT	6626	I	—	Right Rear Side Impact Sensing Module Signal	9	0.35	OG/ WH	6626	IV	—
10	0.5	BK/ OG	6627	I	—	Right Rear Side Impact Sensing Module Low Reference	10	0.35	BK/ OG	6627	IV	—
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—
12	0.5	GN/ GY	6135	I	—	Local Interconnect Network Serial Data Bus 4	12	0.35	GN/ GY	6135	IV	—
13	0.5	BU/ BK	115	I	—	Right Rear Speaker Signal (-)	13	0.5	BU/ BK	115	IV	—
14	0.5	WH	46	I	—	Right Rear Speaker Control (+)	14	0.5	WH	46	IV	—
15 - 16	—	—	—	—	—	Not Occupied	15 - 16	—	—	—	—	—
17	0.75	GY	295	I	—	Door Lock Actuator Lock Control	17	0.75	GY	295	V	—
18 - 19	—	—	—	—	—	Not Occupied	18 - 19	—	—	—	—	—
20	2.5	BK	1250	II	—	Ground	20	2.5	BK	1250	III	—

X901 Rear Bumper Harness to Chassis Harness



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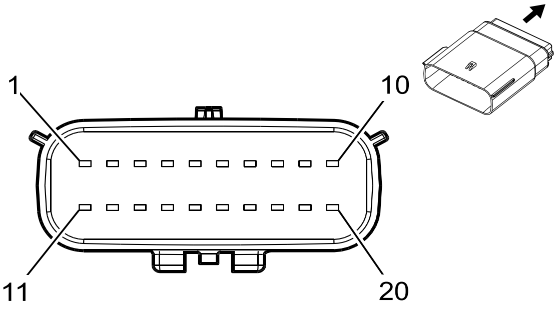


2871861

Connector Part Information

Harness Type: Rear Bumper
OEM Connector: 13650143
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33181044
Service Connector: 19351705
Description: 20-Way M 1.5 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	13575818	J-35616-3 (GY)	J-38125-553	Not Available	Not Available	Not Available	Not Available
III	19119395	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
IV	19119440	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

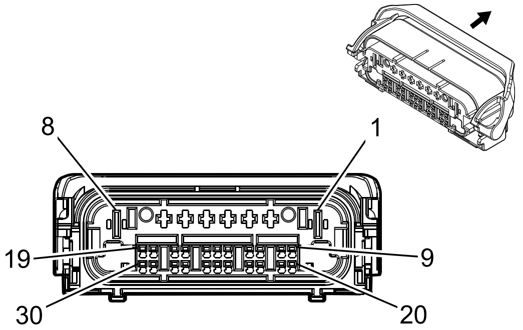
X901 Rear Bumper Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN/YE	6846	I	—	Rear License Lamp Control	1	0.5	GN/YE	6846	III	—
2 - 3	—	—	—	—	—	Not Occupied	2 - 3	—	—	—	—	—
4	0.5	BK/WH	1751	I	—	Signal Ground Signal Ground	4	0.75 0.75	BK/WH BK/WH	1751 1751	IV II	— —
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.5	BK	1450	I	—	Ground	6	1	BK	1450	IV	—
7	0.35	GY/YE	1760	I	—	Left Side Object Detection LED Control	7	0.5	GY/YE	1760	III	—
8	0.35	GY	1761	I	—	Right Side Object Detection LED Control	8	0.5	GY	1761	III	—

X901 Rear Bumper Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	BN/ WH	2374	I	—	Object Sensor Control	9	0.5	BN/ WH	2374	III	—
10	0.5	YE	2375	I	—	Left Rear Corner Object Sensor Signal	10	0.5	YE	2375	III	—
11	0.5	YE/ BU	2376	I	—	Left Rear Middle Object Sensor Signal	11	0.5	YE/ BU	2376	III	—
12	0.5	YE/ WH	2377	I	—	Right Rear Middle Object Sensor Signal	12	0.5	YE/ WH	2377	III	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	RD/ GN	1840	I	—	Battery Positive Voltage	14	0.5	RD/ GN	1840	III	—
15	0.5	YE/ VT	2378	I	—	Right Rear Corner Object Sensor Signal	15	0.5	YE/ VT	2378	III	—
16	0.5	BK/ GY	2379	I	—	Object Sensor Low Reference	16	0.5	BK/ GY	2379	III	—
17	—	—	—	—	—	Not Occupied	17	—	—	—	—	—
18	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	18	0.5	GN	5060	III	—
19 - 20	—	—	—	—	—	Not Occupied	19 - 20	—	—	—	—	—

X926 Rearview Camera Jumper Harness to Chassis Harness (5N5)



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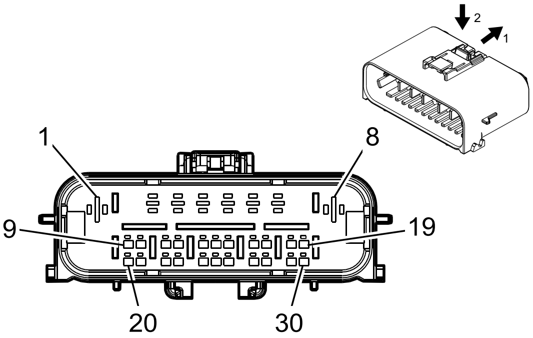


4817393

Connector Part Information

Harness Type: Endgate
OEM Connector: 33378383
Service Connector: Service by Harness - See Part Catalog
Description: 30-Way F 1.2 MCON, 2.8, 6.3 MCP Series (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33363373
Service Connector: 19371177
Description: 30-Way M 1.2 MCON, 2.8, 6.3 MCP Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-40 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	13575376	J-35616-43 (RD)	J-38125-557	Not Available	Not Available	Not Available	Not Available
IV	19330704	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

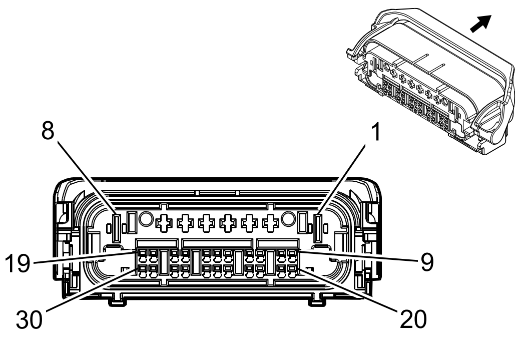
X926 Rearview Camera Jumper Harness to Chassis Harness (5N5)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/ GY	7040	II	—	Battery Positive Voltage	1	2.5	RD/ GY	7040	III	—
2 - 7	—	—	—	—	—	Not Occupied	2 - 7	—	—	—	—	—
8	2.5	BK	1450	II	—	Ground	8	4	BK	1450	III	—
9	0.5	BK/ WH	1751	I	—	Signal Ground	9	0.5	BK/ WH	1751	IV	—
10	0.5	YE/ BU	7295	I	—	Left Minor Endgate Ajar Signal	10	0.5	YE/ BU	7295	IV	—
11	0.35	WH/ BN	7296	I	—	Right Minor Endgate Ajar Signal	11	0.5	WH/ BN	7296	IV	—
12	0.35	BU	6974	I	—	Camera Low Reference	12	0.5	BU	6974	IV	—

X926 Rearview Camera Jumper Harness to Chassis Harness (5N5) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
13	0.5	GY	1198	I	—	Endgate Release Switch Analog Signal Interior	13	0.5	GY	1198	IV	—
14	0.5	WH/BU	6973	I	—	Camera Signal 2	14	0.5	WH/BU	6973	IV	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	0.5	VT	7725	I	—	Minor Endgate Motor Supply Voltage	16	0.5	VT	7725	IV	—
17	0.5	YE/BK	7730	I	—	Major Endgate Motor Return	17	0.5	YE/BK	7730	IV	—
18	0.5	BN/BK	7726	I	—	Minor Endgate Motor Return	18	0.5	BN/BK	7726	IV	—
19	—	—	—	—	—	Not Occupied	19	—	—	—	—	—
20	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	20	0.5	GN	5060	IV	—
21 - 23	—	—	—	—	—	Not Occupied	21 - 23	—	—	—	—	—
24	0.5	VT/GN	1739	I	—	Run/Crank Ignition 1 Voltage	24	0.5	VT/GN	1739	IV	—
25	0.5	WH/VT	1430	I	—	Exterior Courtesy Lamp Control	25	0.5	WH/VT	1430	IV	—
26	0.5	GY/YE	6972	I	—	Camera Signal 2 +	26	0.5	GY/YE	6972	IV	—
27	0.5	GY	7292	I	—	Major Endgate Release Switch Signal Exterior	27	0.5	GY	7292	IV	—
28	0.35	YE	7294	I	—	Minor Endgate Release Switch Discrete Signal Exterior	28	0.5	YE	7294	IV	—
29	—	—	—	—	—	Not Occupied	29	—	—	—	—	—
30	0.5 0.75	GN GN	1299 1299	I I	QK2 QK2+QT5	Major Endgate Motor Supply Voltage Major Endgate Motor Supply Voltage	30	0.5	GN	1299	IV	—

X926 Endgate Harness to Chassis Harness (UVC)



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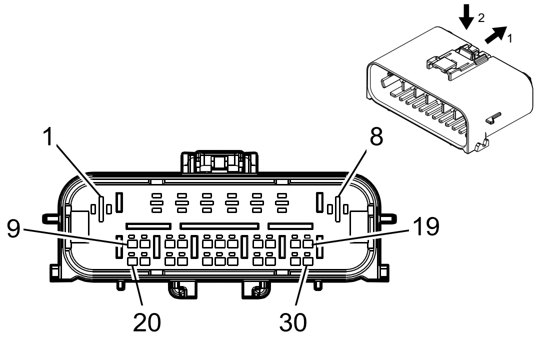


4817393

Connector Part Information

Harness Type: Endgate
OEM Connector: 33378383
Service Connector: Service by Harness - See Part Catalog
Description: 30-Way F 1.2 MCON, 2.8, 6.3 MCP Series (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33363373
Service Connector: 19371177
Description: 30-Way M 1.2 MCON, 2.8, 6.3 MCP Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-40 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	13575376	J-35616-43 (RD)	J-38125-557	Not Available	Not Available	Not Available	Not Available
IV	19330704	J-35616-17 (LT GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available

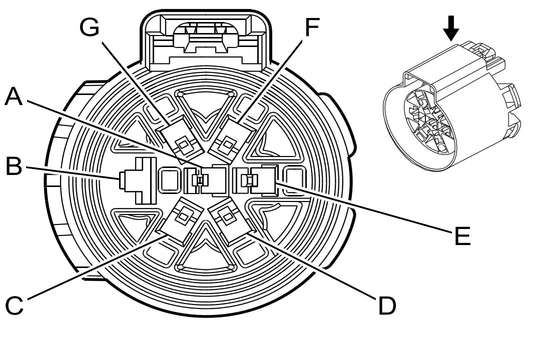
X926 Endgate Harness to Chassis Harness (UVC)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD/ GY	7040	II	—	Battery Positive Voltage	1	2.5	RD/ GY	7040	III	—
2 - 7	—	—	—	—	—	Not Occupied	2 - 7	—	—	—	—	—
8	2.5	BK	1450	II	—	Ground	8	4	BK	1450	III	—
9	0.5	BK/ WH	1751	I	—	Signal Ground	9	0.5	BK/ WH	1751	IV	—
10	0.5	YE/ BU	7295	I	—	Left Minor Endgate Ajar Signal	10	0.5	YE/ BU	7295	IV	—
11	0.35	WH/ BN	7296	I	—	Right Minor Endgate Ajar Signal	11	0.5	WH/ BN	7296	IV	—
12	0.35	BU	6974	I	—	Camera Low Reference	12	0.5	BU	6974	IV	—

X926 Endgate Harness to Chassis Harness (UVC) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
13	0.5	GY	1198	I	—	Endgate Release Switch Analog Signal Interior	13	0.5	GY	1198	IV	—
14	0.5	WH/BU	6973	I	—	Camera Signal 2	14	0.5	WH/BU	6973	IV	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	0.5	VT	7725	I	—	Minor Endgate Motor Supply Voltage	16	0.5	VT	7725	IV	—
17	0.5	YE/BK	7730	I	—	Major Endgate Motor Return	17	0.5	YE/BK	7730	IV	—
18	0.5	BN/BK	7726	I	—	Minor Endgate Motor Return	18	0.5	BN/BK	7726	IV	—
19	—	—	—	—	—	Not Occupied	19	—	—	—	—	—
20	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	20	0.5	GN	5060	IV	—
21 - 23	—	—	—	—	—	Not Occupied	21 - 23	—	—	—	—	—
24	0.5	VT/GN	1739	I	—	Run/Crank Ignition 1 Voltage	24	0.5	VT/GN	1739	IV	—
25	0.5	WH/VT	1430	I	—	Exterior Courtesy Lamp Control	25	0.5	WH/VT	1430	IV	—
26	0.5	GY/YE	6972	I	—	Camera Signal 2 +	26	0.5	GY/YE	6972	IV	—
27	0.5	GY	7292	I	—	Major Endgate Release Switch Signal Exterior	27	0.5	GY	7292	IV	—
28	0.35	YE	7294	I	—	Minor Endgate Release Switch Discrete Signal Exterior	28	0.5	YE	7294	IV	—
29	—	—	—	—	—	Not Occupied	29	—	—	—	—	—
30	0.5 0.75	GN GN	1299 1299	I I	QK2 QK2+QT5	Major Endgate Motor Supply Voltage Major Endgate Motor Supply Voltage	30	0.5	GN	1299	IV	—

X950 Chassis Harness to Trailer Jumper Harness



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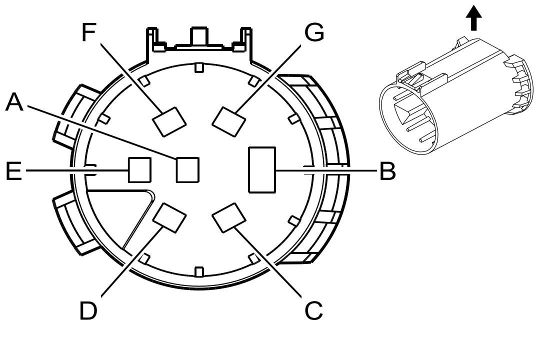


366087

Connector Part Information

- Harness Type: Chassis
- OEM Connector: 13857223
- Service Connector: 15306164
- Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

Connector Part Information

- Harness Type: Trailer Jumper
- OEM Connector: 15317327
- Service Connector: Service by Harness - See Part Catalog
- Description: 7-Way M 280 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X950 Chassis Harness to Trailer Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.75	WH/GN	1624	II	—	Trailer Backup Lamp Control	A	1	GN	1624	IV	—
B	5	WH	22	I	—	Trailer Ground	B	5	WH	22	III	—
C	2.5	BU	47	II	—	Trailer Auxiliary Control	C	3	BU	47	IV	—
D	0.75	GN/VT	1619	II	—	Right Rear Trailer Stop/Turn Lamp Control	D	0.8	GN	1619	IV	—
E	4	RD/GN	742	II	—	Battery Positive Voltage	E	3	RD/BK	742	IV	—
F	1.5	GY/BN	2109	II	—	Trailer Park Lamp Control	F	1	BN	2109	IV	—

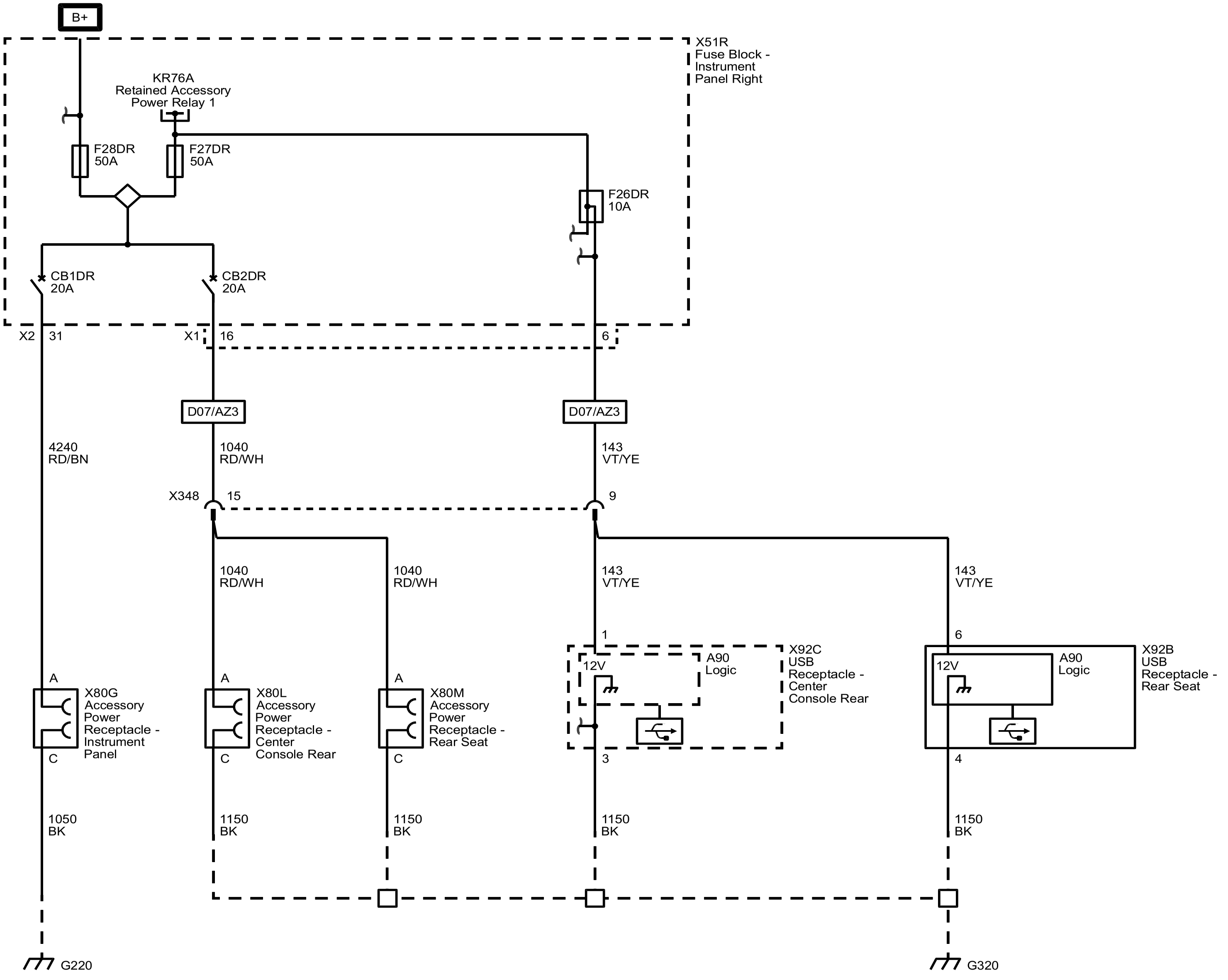
X950 Chassis Harness to Trailer Jumper Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
G	0.75	YE/ BU	318	II	—	Left Rear Trailer Stop/ Turn Lamp Control	G	0.8	YE	1618	IV	—

Power Outlets

Schematic and Routing Diagrams

Cigar Lighter/Power Outlet Schematics (12V DC Power Outlets and USB Receptacles)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X51R
Fuse Block -
Instrument
Panel Right
KR76A
Retained Accessory
Power Relay 1
F28DR
50A
F27DR
50A
F26DR
10A
CB1DR
20A
CB2DR
20A
X2 31
X1 16
6
D07/AZ3
D07/AZ3
4240
RD/BN
1040
RD/WH
143
VT/YE
X348 15
9
1040
RD/WH
1040
RD/WH
143
VT/YE
143
VT/YE
1
6
A
A
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X80G
Accessory
Power
Receptacle -
Instrument
Panel
X80L
Accessory
Power
Receptacle -
Center
Console Rear
X80M
Accessory
Power
Receptacle -
Rear Seat
12V
A90
Logic
X92C
USB
Receptacle -
Center
Console Rear
12V
A90
Logic
X92B
USB
Receptacle -
Rear Seat
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3
4
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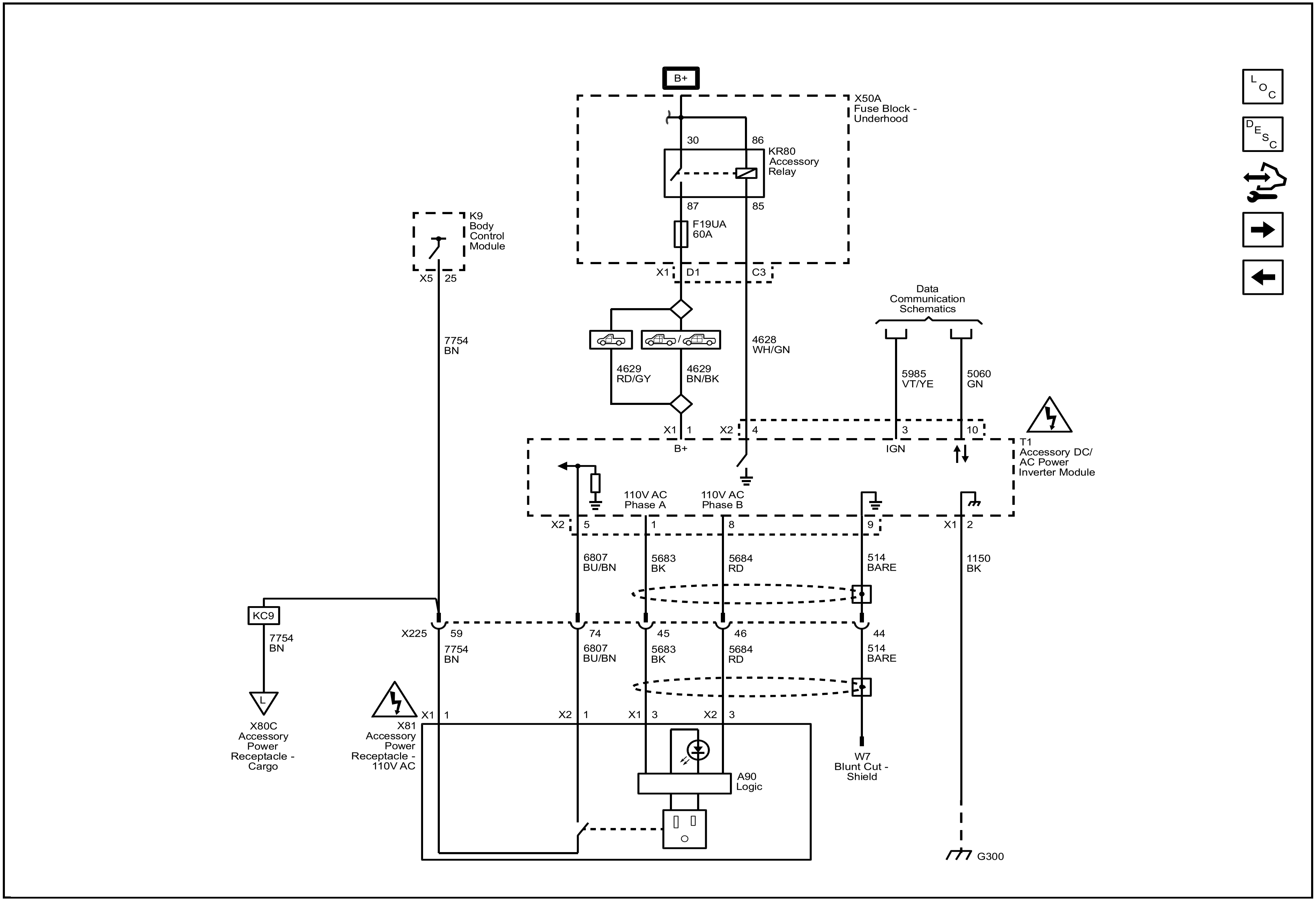
G320

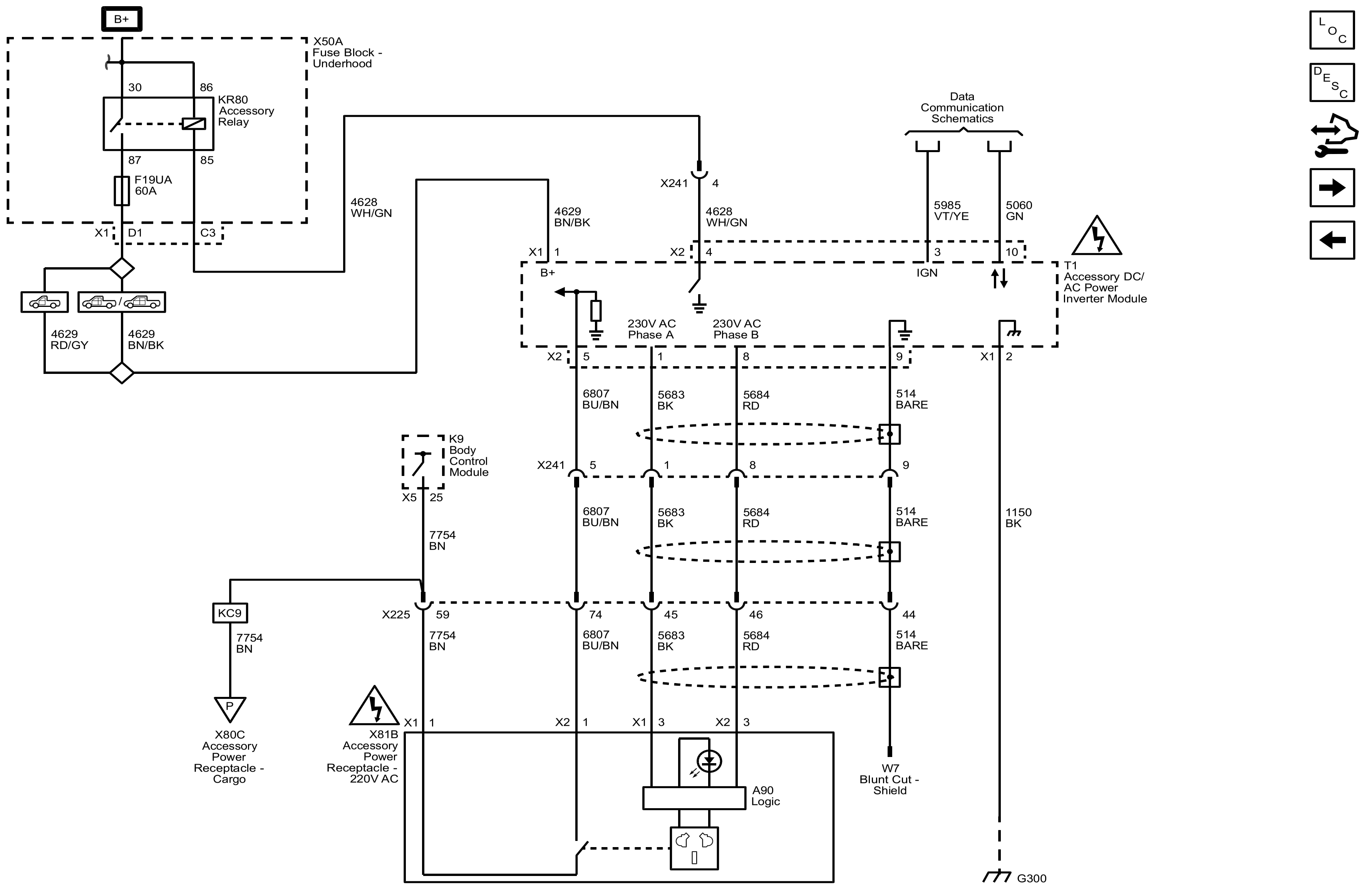
5256250

Cigar Lighter/Power Outlet Schematics (Inverter Module and Instrument Panel Power Receptacle - 110V AC (KI4))


B+
X50A
Fuse Block -
Underhood
30
86
KR80
Accessory
Relay
87
85
F19UA
60A
X1
D1
C3
K9
Body
Control
Module
X5
25
7754
BN
4629
RD/GY
4629
BN/BK
4628
WH/GN
Data
Communication
Schematics
5985
VT/YE
5060
GN
X1
1
B+
X2
4
3
IGN
10
T1
Accessory DC/
AC Power
Inverter Module
110V AC
Phase A
110V AC
Phase B
X2
5
1
8
9
X1
2
6807
BU/BN
5683
BK
5684
RD
514
BARE
1150
BK
KC9
X225
59
74
45
46
44
7754
BN
6807
BU/BN
5683
BK
5684
RD
514
BARE
7754
BN
L
X80C
Accessory
Power
Receptacle -
Cargo
X81
Accessory
Power
Receptacle -
110V AC
X1
1
X2
1
X1
3
X2
3
A90
Logic
W7
Blunt Cut -
Shield
G300
L O C
D E S C

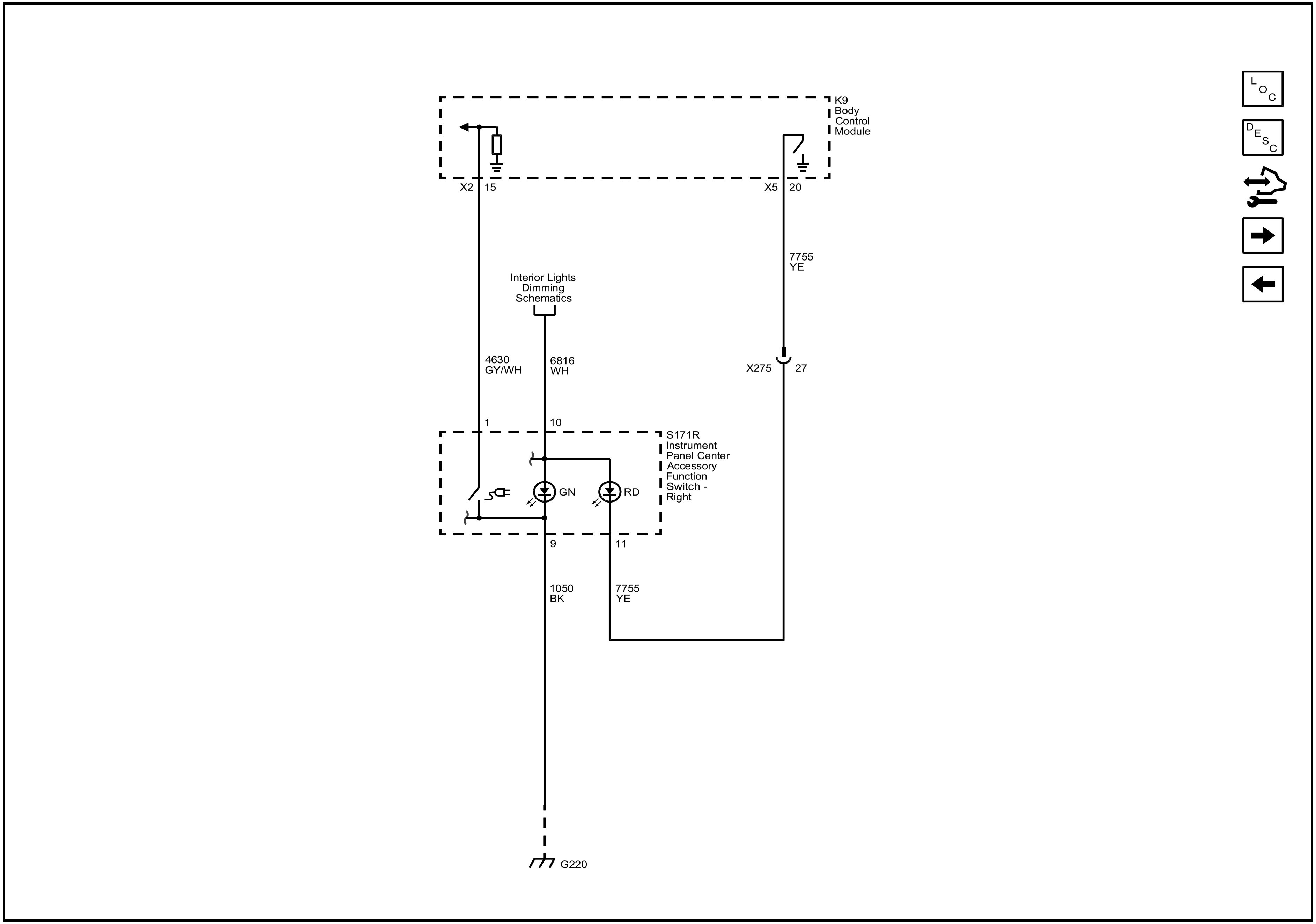
5256251

Cigar Lighter/Power Outlet Schematics (Inverter Module and Instrument Panel Power Receptacle - 230V AC (KI5))


B+
X50A
Fuse Block -
Underhood
30
86
KR80
Accessory
Relay
87
85
F19UA
60A
X1
D1
C3
4628
WH/GN
4629
RD/GY
4629
BN/BK
X241
4
4628
WH/GN
X1
1
B+
4629
BN/BK
X2
4
Data
Communication
Schematics
5985
VT/YE
5060
GN
3
IGN
10
T1
Accessory DC/
AC Power
Inverter Module
230V AC
Phase A
230V AC
Phase B
X2
5
1
8
9
X1
2
6807
BU/BN
5683
BK
5684
RD
514
BARE
K9
Body
Control
Module
X5
25
X241
5
1
8
9
1150
BK
7754
BN
X225
59
74
45
46
44
KC9
7754
BN
P
X80C
Accessory
Power
Receptacle -
Cargo
X81B
Accessory
Power
Receptacle -
220V AC
X1
1
X2
1
X1
3
X2
3
A90
Logic
W7
Blunt Cut -
Shield
G300

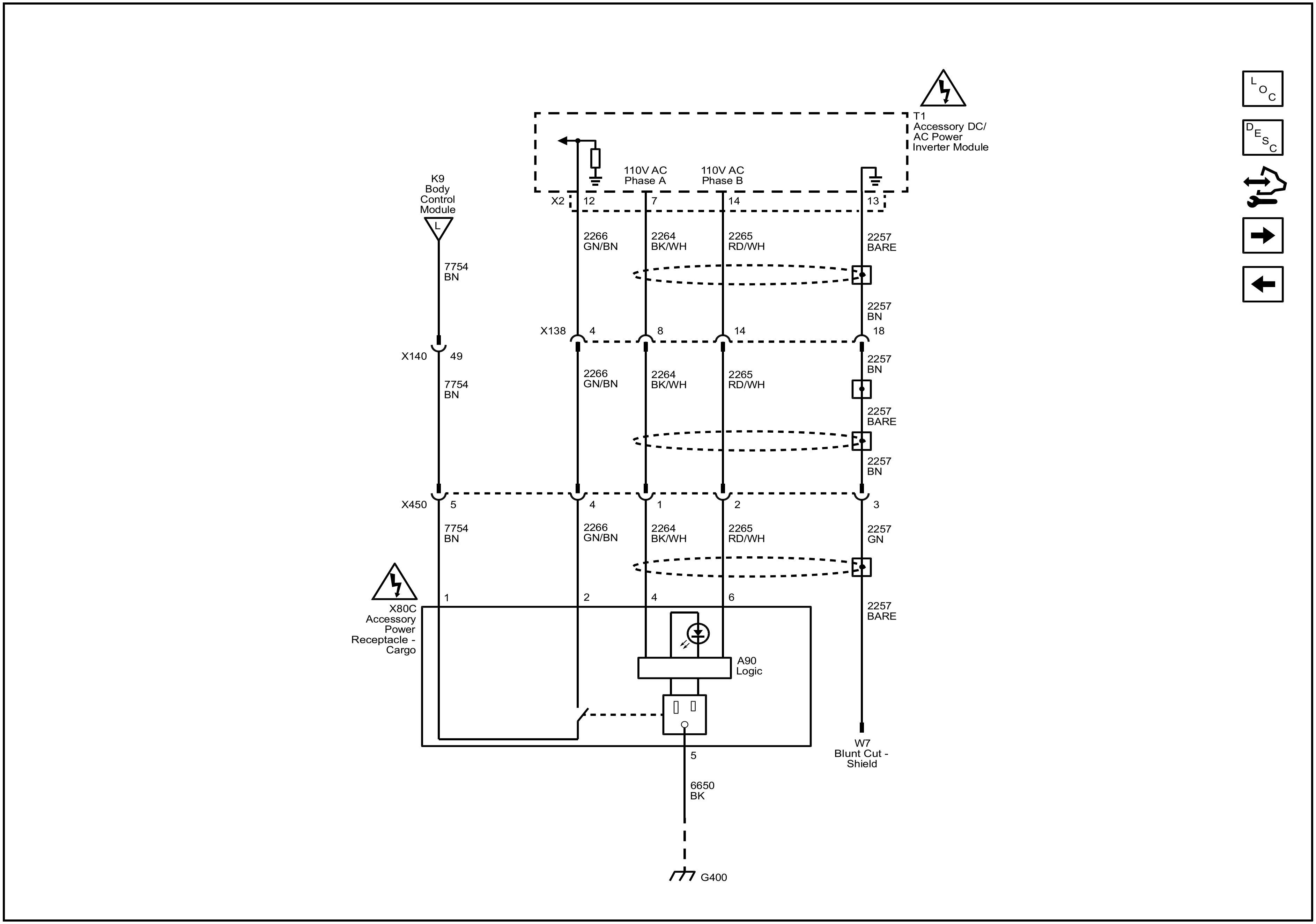
5256252

Cigar Lighter/Power Outlet Schematics (Cargo Power Receptacle Controls and Indicators (KC9/KCA))


K9
Body
Control
Module
X2 15
X5 20
7755
YE
Interior Lights
Dimming
Schematics
4630
GY/WH
6816
WH
X275 27
1
10
S171R
Instrument
Panel Center
Accessory
Function
Switch -
Right
GN
RD
9
11
1050
BK
7755
YE
G220
LOC
DESC

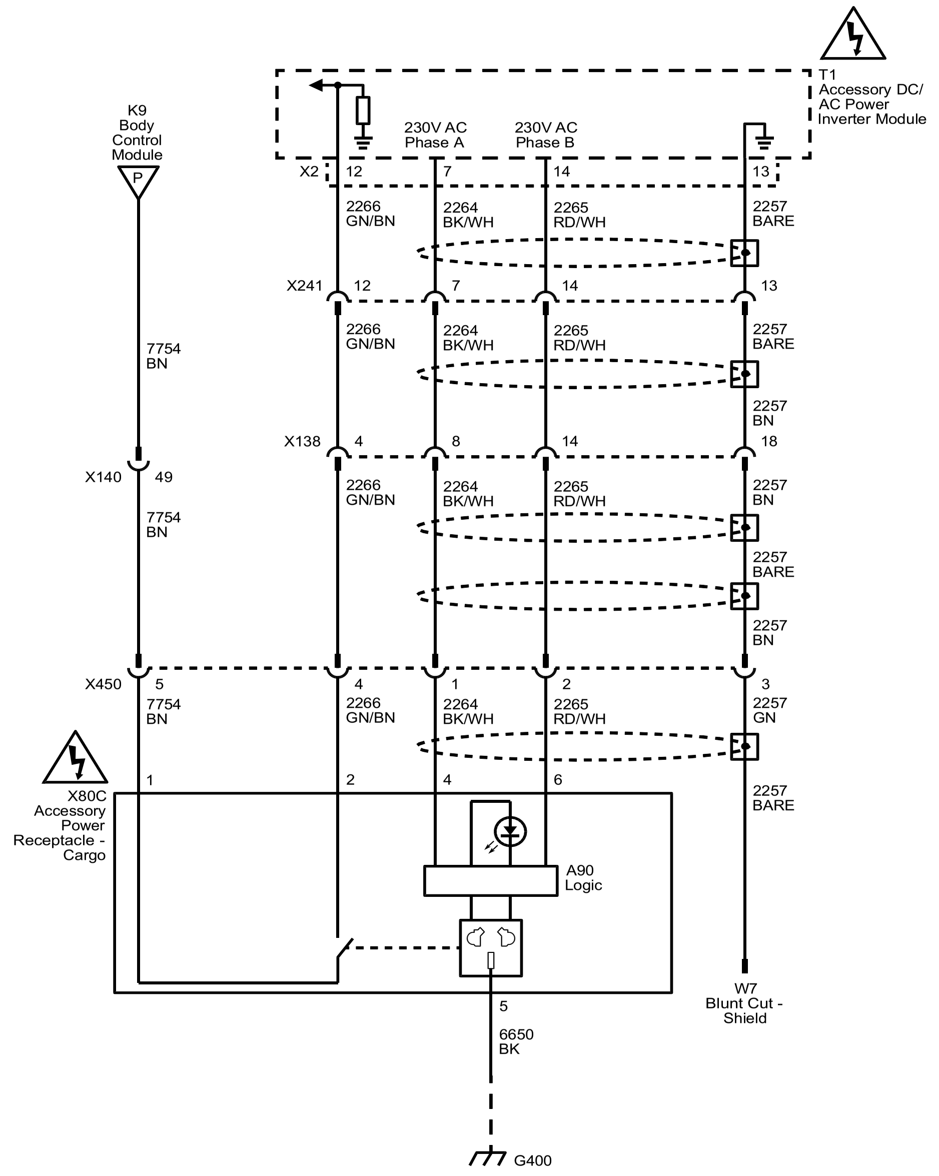
5256253

Cigar Lighter/Power Outlet Schematics (Cargo Power Receptacle - 110V AC (KC9))



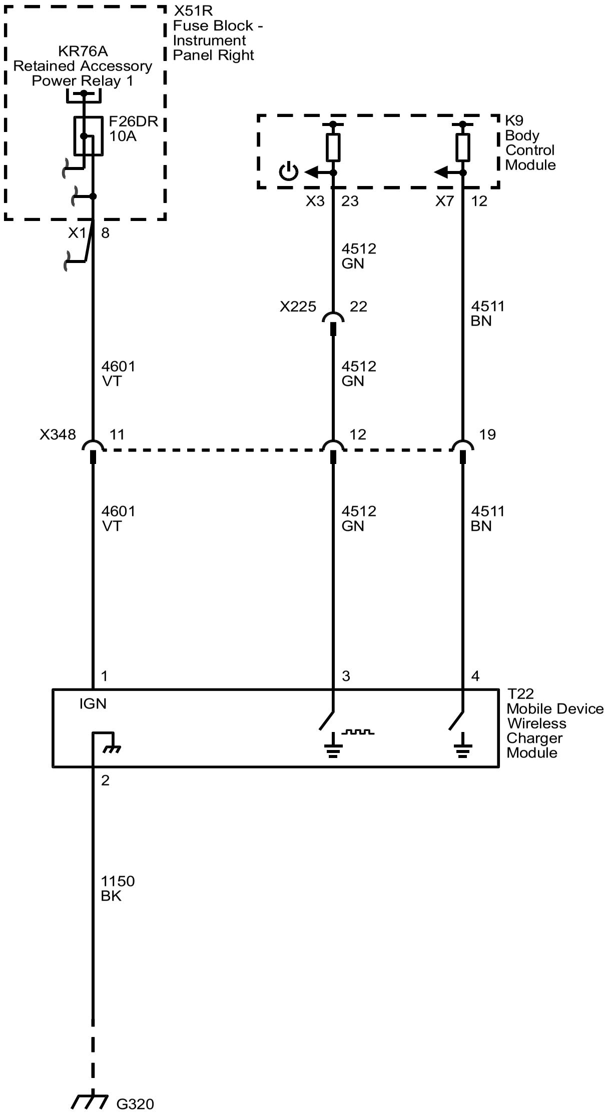
T1
Accessory DC/
AC Power
Inverter Module
X2
12
7
14
13
110V AC
Phase A
110V AC
Phase B
2266
GN/BN
2264
BK/WH
2265
RD/WH
2257
BARE
2257
BN
X138
4
8
14
18
K9
Body
Control
Module
L
7754
BN
X140
49
2257
BARE
X450
5
4
1
2
3
2257
GN
X80C
Accessory
Power
Receptacle -
Cargo
1
2
4
6
A90
Logic
5
6650
BK
G400
W7
Blunt Cut -
Shield
LOC
DESC
5256255

Cigar Lighter/Power Outlet Schematics (Cargo Power Receptacle - 230V AC (KCA))


T1
Accessory DC/
AC Power
Inverter Module
K9
Body
Control
Module
P
230V AC
Phase A
230V AC
Phase B
X2
12
7
14
13
2266
GN/BN
2264
BK/WH
2265
RD/WH
2257
BARE
X241
12
7
14
13
2266
GN/BN
2264
BK/WH
2265
RD/WH
2257
BARE
2257
BN
7754
BN
X138
4
8
14
18
X140
49
7754
BN
2266
GN/BN
2264
BK/WH
2265
RD/WH
2257
BN
2257
BARE
2257
BN
X450
5
4
1
2
3
7754
BN
2266
GN/BN
2264
BK/WH
2265
RD/WH
2257
GN
2257
BARE
1
2
4
6
X80C
Accessory
Power
Receptacle -
Cargo
A90
Logic
W7
Blunt Cut -
Shield
5
6650
BK
G400

5256256

Cigar Lighter/Power Outlet Schematics (Wireless Charging (K4C))


X51R
Fuse Block - Instrument Panel Right
KR76A
Retained Accessory Power Relay 1
F26DR
10A
X1
8
K9
Body Control Module
X3
23
X7
12
4512
GN
X225
22
4511
BN
4601
VT
X348
11
12
19
1
3
4
IGN
2
T22
Mobile Device Wireless Charger Module
1150
BK
G320

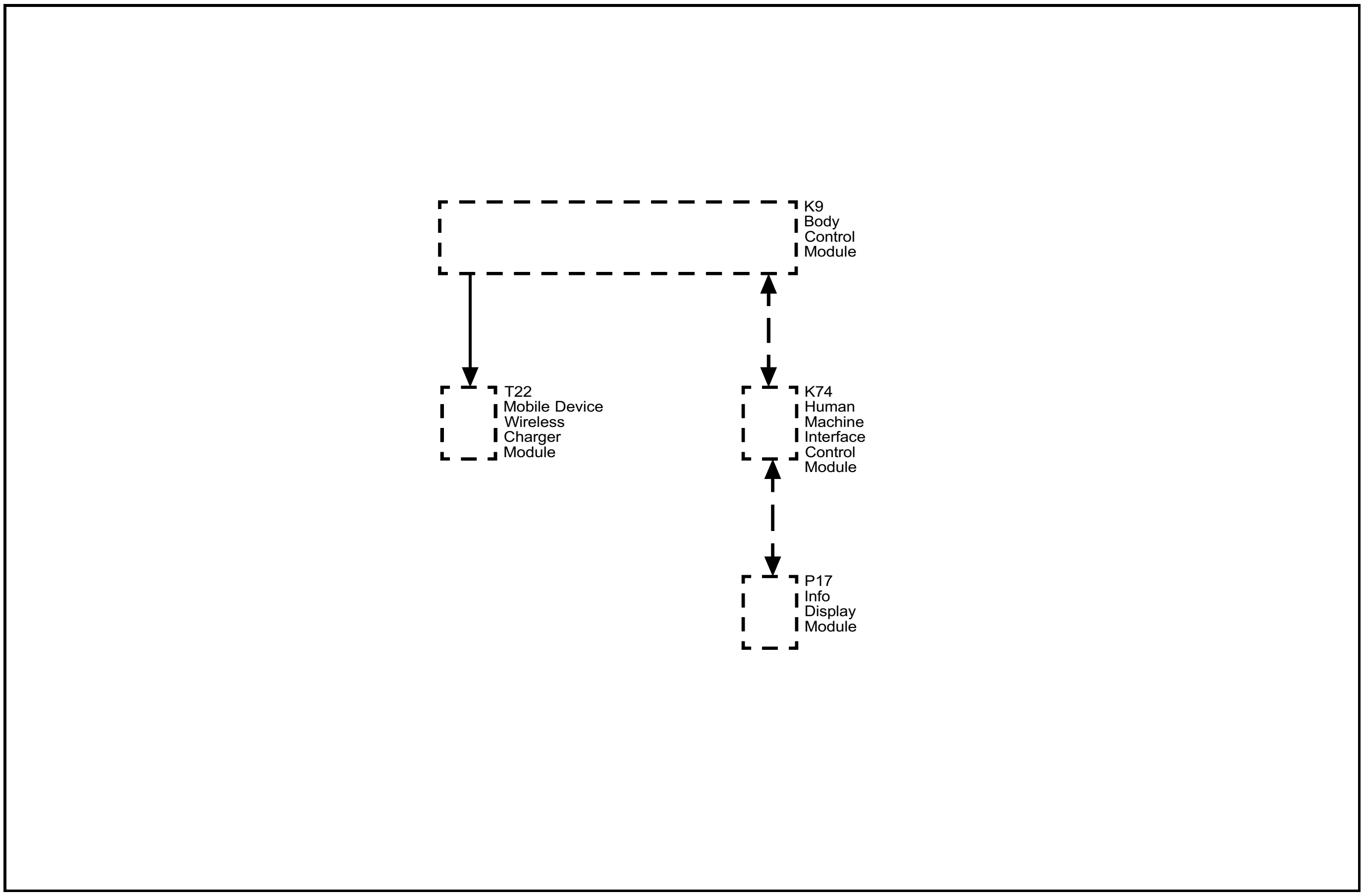
5256257

Description and Operation

Mobile Device Wireless Charger Description and Operation

Mobile Device Wireless Charging System

Mobile Device Wireless Charging System Block Diagram



3607745

The Mobile Device Wireless Charging System (WCS) is an system for wirelessly charging mobile devices. It is capable of charging the batteries of compatible mobile devices. A compatible device is one that is compliant with Power Matters Alliance (PMA) or Wireless Power Consortium (WPC) Standard, meaning that it is equipped with a PMA or WPC wireless charge “receiver” that will work with the charge “transmitter” installed in the vehicle. The devices may utilize built-in charging circuitry or an adapter (external plug-in device which contains the charging circuitry). To check for phone or other device compatibility, refer to GM Total Connect.

Warning: Remove all objects from the charging pad before charging your mobile device. Objects, such as coins, keys, rings, paper clips, or cards, between the phone and charging pad will become very hot. On the rare occasion that the charging system does not detect an object, and the object gets wedged between the phone and charger, remove the phone and allow the object to cool before removing it from the charging pad, to prevent burns.

Charging

To charge a device, place it on the charging surface in the vehicle. There is a charging coil located in the center of the charging surface. The device has a charging coil typically near the center of the device. These coils must be lined up in order for charging to proceed. When the interruptible retained accessory power (IRAP) relay is closed (this is true typically when vehicle ignition is in Run or Accessory position), the WCS will detect the device, establish communications with the device to confirm it is a compatible device, and then deliver charging power to the device via wireless interface. The WCS will be able to deliver up to 5W of power to compatible devices. It shall only enter a charging state if communication is established and a compatible device is identified.

The WCS shall not enter a charging state if there is no communication established with a compatible device. If a non-compatible device or metallic foreign object is detected, the WCS will not transfer power. The charger monitors its internal temperature and will shut down if the charger temperature exceeds 185F (85C).

Indicator

The body control module will detect the device battery is charging and send a serial data message on the GMLAN bus to the radio display. The radio display will indicate a device is currently charging. When the indicator is toggling on and off this indicates a thermal limit has been reached and the device will not charge. For more information refer to the owners manual.

Power Outlets Description and Operation

12 Volt Power Outlet Receptacle Description and Operation

The vehicle is fitted with a 12 V accessory power receptacle. The accessory power receptacles are controlled by an ignition operated relay. The accessory power receptacles are operational when the ignition is turned to either the On or the Accessories positions. The X80J and X80K accessory power receptacles may be configured to be operational when the ignition is Off by changing the position of the 50A fuse from the F10DL position to the F11DL position in the left instrument panel fuse block.

110 Volt Power Outlet Receptacle System Description

The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 110 V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 110 V at 60 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 400 watts of power. The accessory power receptacle – 110 V AC provides the usual connection for AC powered devices.

110 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 110 V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 110 V AC, the normally open switch in the accessory power receptacle – 110 V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 110 V AC switch, the inverter module begins to supply 110 V AC to the accessory power receptacle – 110 V AC after a 1.5 s delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

110 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 110 V circuit for a short to vehicle chassis ground. If a 110 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

110 Volt Power Outlet Receptacle Overload Shutdown

The accessory DC/AC power inverter module will turn OFF if the current in the 110 V circuit is greater than 3.8 A for 1 s , or 2.5 A for 10 s . The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

110 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the outlet, and then plugged into the outlet.

230 Volt Power Outlet Receptacle System Description

The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 220V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 220–230 V at 50 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 400 watts of power. The accessory power receptacle – 220V AC provides the usual connection for AC powered devices.

230 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 220V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 220V AC, the normally open switch in the accessory power receptacle – 220V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 220V AC switch, the inverter module begins to supply 220–230 V AC to the accessory power receptacle – 220V AC after a 1.5 second delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

230 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 230 V circuit for a short to vehicle chassis ground. If a 230 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

230 Volt Power Outlet Receptacle Overload Shutdown

The accessory AC/DC power control module will turn OFF if the current in the 230 V circuit is greater than 3.8 A for 1 second, or 2.5 A for 10 seconds. The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 second delay.

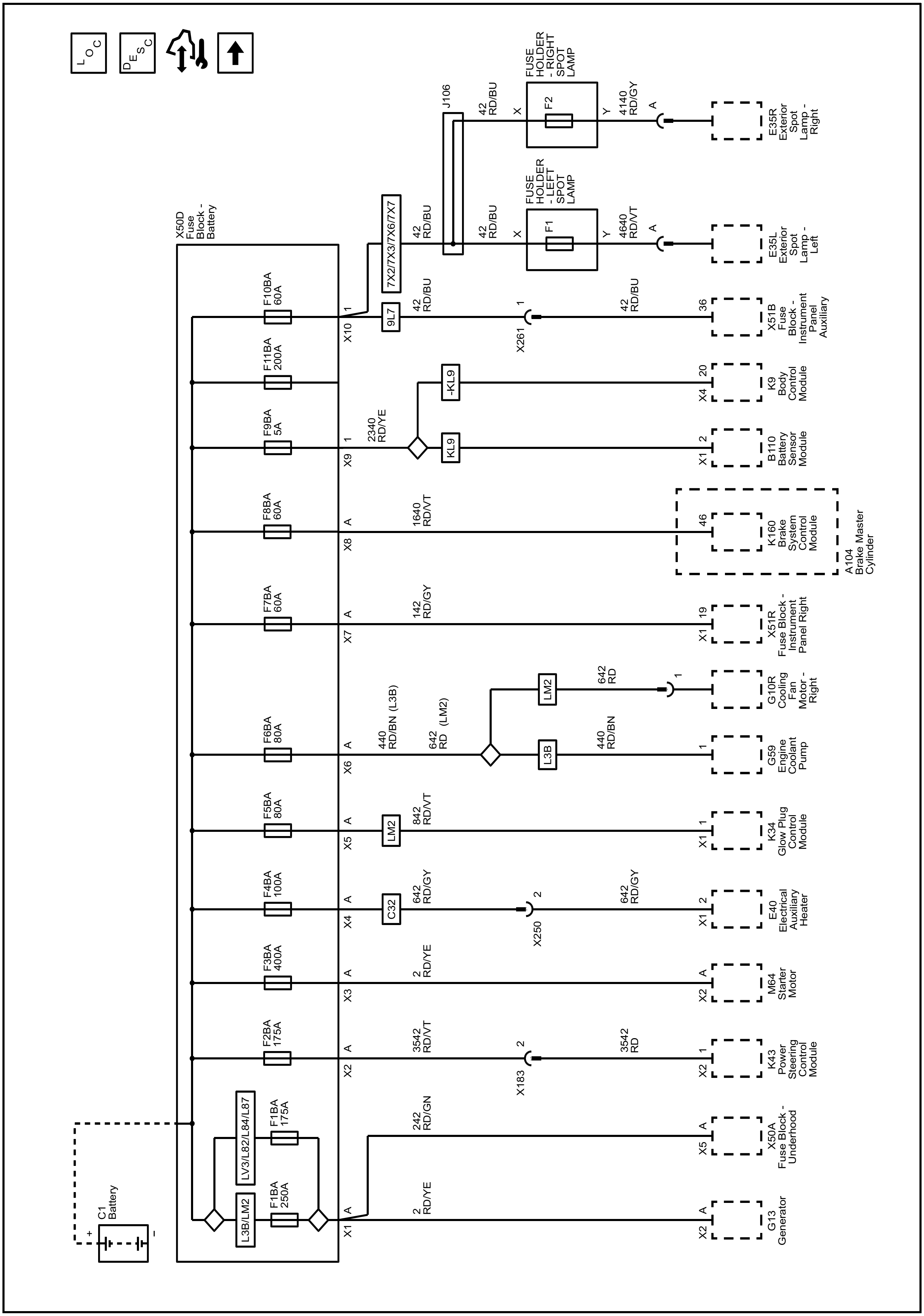
230 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the accessory power receptacle – 220V AC, and then plugged into the accessory power receptacle – 220V AC.

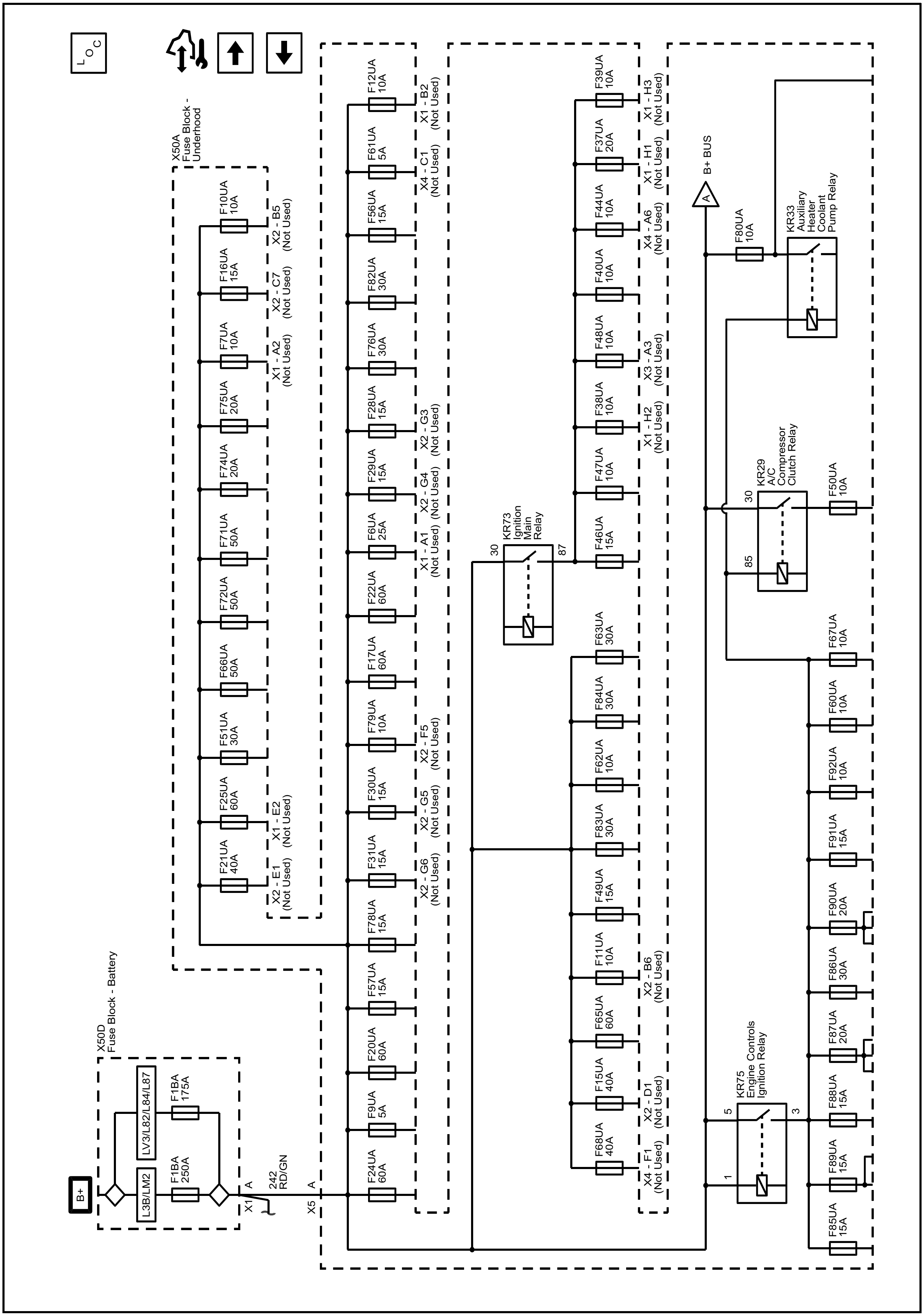
Wiring Systems and Power Management

Schematic and Routing Diagrams

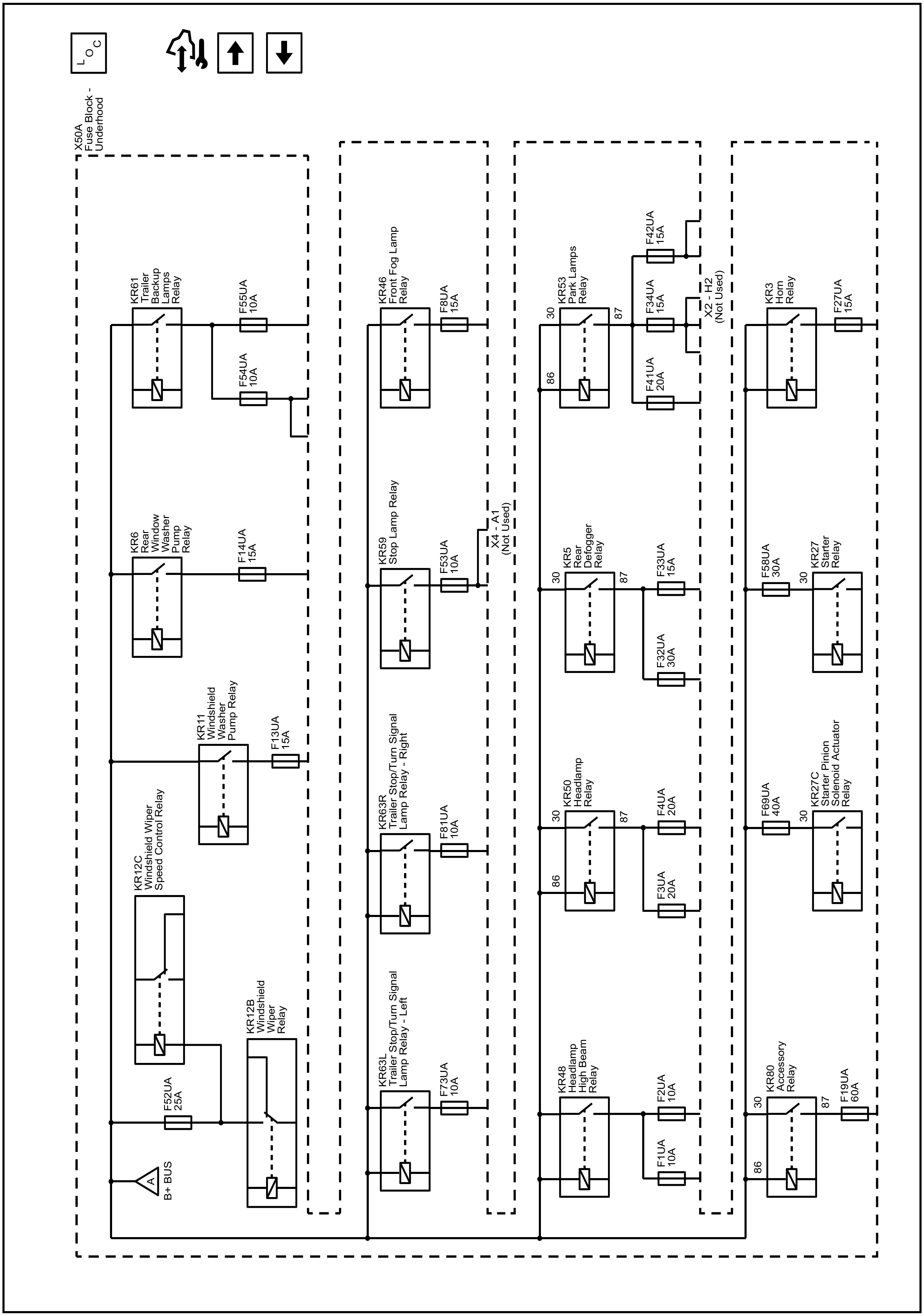
Power Distribution Schematics (X50D Battery Fuse Block and Spot Lamp Fuse Holders (7X2/7X3/7X6/7X7))


LOC
DESC
5256258
C1 Battery
+
-
X50D Fuse Block - Battery
L3B/LM2
LV3/L82/L84/L87
F1BA 250A
F1BA 175A
F2BA 175A
F3BA 400A
F4BA 100A
F5BA 80A
F6BA 80A
F7BA 60A
F8BA 60A
F9BA 5A
F11BA 200A
F10BA 60A
X1 A
X2 A
X3 A
X4 A
X5 A
X6 A
X7 A
X8 A
X9 1
X10 1
2 RD/YE
242 RD/GN
3542 RD/VT
3542 RD
X183
2
2 RD/YE
C32
642 RD/GY
X250
LM2
842 RD/VT
440 RD/BN (L3B)
642 RD (LM2)
L3B
440 RD/BN
LM2
642 RD
142 RD/GY
1640 RD/VT
2340 RD/YE
KL9
-KL9
9L7
42 RD/BU
X261
7X2/7X3/7X6/7X7
J106
X
Y
F1
F2
FUSE HOLDER - LEFT SPOT LAMP
FUSE HOLDER - RIGHT SPOT LAMP
4640 RD/VT
4140 RD/GY
A
X2 A
G13 Generator
X5 A
X50A Fuse Block - Underhood
X2 1
K43 Power Steering Control Module
X2 A
M64 Starter Motor
X1 2
E40 Electrical Auxiliary Heater
X1 1
K34 Glow Plug Control Module
1
G59 Engine Coolant Pump
1
G10R Cooling Fan Motor - Right
X1 19
X51R Fuse Block - Instrument Panel Right
46
K160 Brake System Control Module
A104 Brake Master Cylinder
X1 2
B110 Battery Sensor Module
X4 20
K9 Body Control Module
36
X51B Fuse Block - Instrument Panel Auxiliary
E35L Exterior Spot Lamp - Left
E35R Exterior Spot Lamp - Right

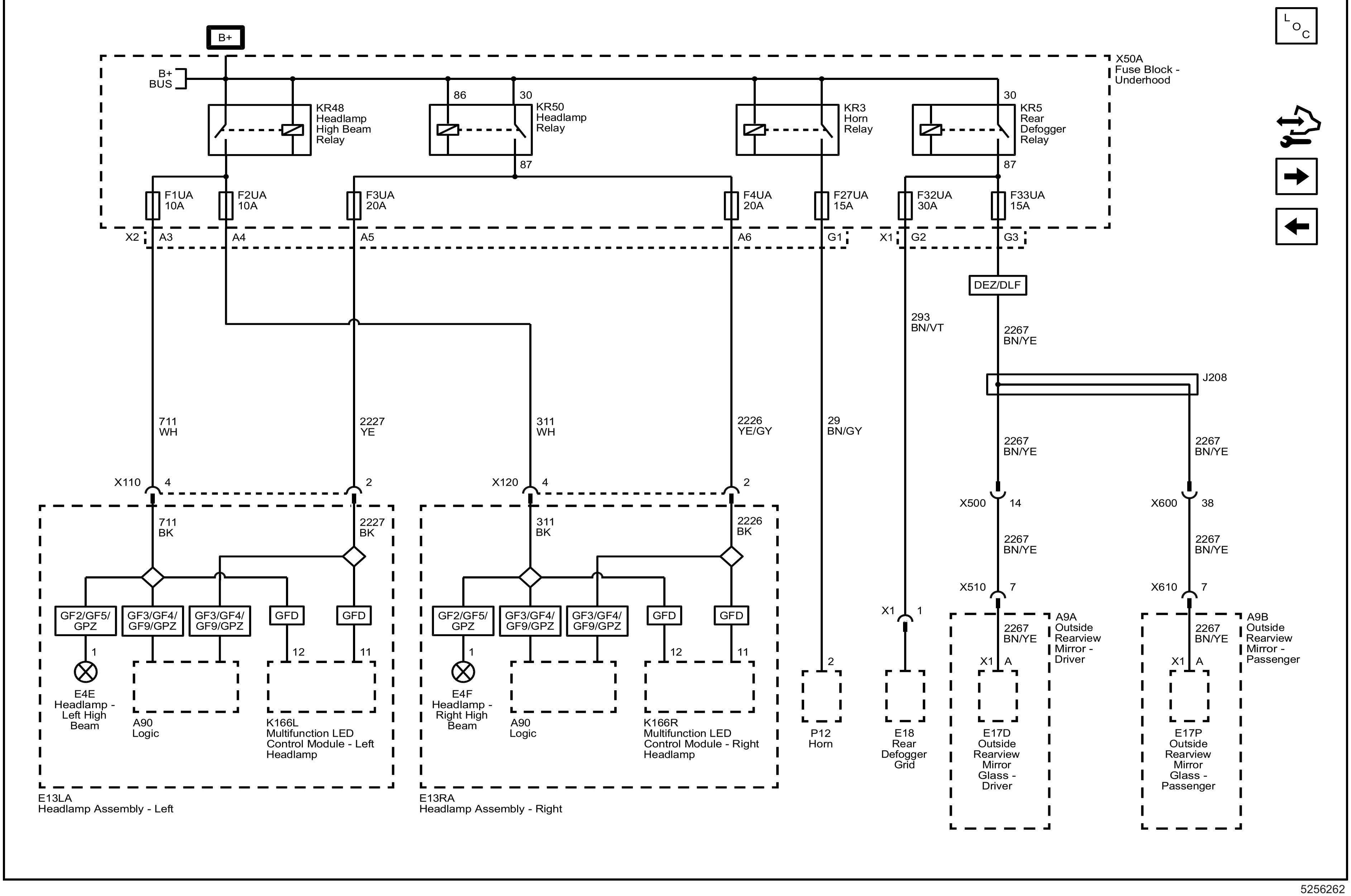
Power Distribution Schematics (X50A Underhood Fuse Block Bussing (1 of 2))


5256260
B+
X50D
Fuse Block - Battery
L3B/LM2
LV3/L82/L84/L87
F1BA
250A
F1BA
175A
X1
A
242
RD/GN
X5
A
X50A
Fuse Block - Underhood
F21UA 40A
F25UA 60A
F51UA 30A
F66UA 50A
F72UA 50A
F71UA 50A
F74UA 20A
F75UA 20A
F7UA 10A
F16UA 15A
F10UA 10A
X2 - E1 (Not Used)
X1 - E2 (Not Used)
X1 - A2 (Not Used)
X2 - C7 (Not Used)
X2 - B5 (Not Used)
F24UA 60A
F9UA 5A
F20UA 60A
F57UA 15A
F78UA 15A
F31UA 15A
F30UA 15A
F79UA 10A
F17UA 60A
F22UA 60A
F6UA 25A
F29UA 15A
F28UA 15A
F76UA 30A
F82UA 30A
F56UA 15A
F61UA 5A
F12UA 10A
X2 - G6 (Not Used)
X2 - G5 (Not Used)
X2 - F5 (Not Used)
X1 - A1 (Not Used)
X2 - G4 (Not Used)
X2 - G3 (Not Used)
X4 - C1 (Not Used)
X1 - B2 (Not Used)
KR73
Ignition Main Relay
30
87
F68UA 40A
F15UA 40A
F65UA 60A
F11UA 10A
F49UA 15A
F83UA 30A
F62UA 10A
F84UA 30A
F63UA 30A
F46UA 15A
F47UA 10A
F38UA 10A
F48UA 10A
F40UA 10A
F44UA 10A
F37UA 20A
F39UA 10A
X4 - F1 (Not Used)
X2 - D1 (Not Used)
X2 - B6 (Not Used)
X1 - H2 (Not Used)
X3 - A3 (Not Used)
X4 - A6 (Not Used)
X1 - H1 (Not Used)
X1 - H3 (Not Used)
A
B+ BUS
F80UA 10A
KR33
Auxiliary Heater Coolant Pump Relay
KR29
A/C Compressor Clutch Relay
30
85
F50UA 10A
KR75
Engine Controls Ignition Relay
5
1
3
F85UA 15A
F89UA 15A
F88UA 15A
F87UA 20A
F86UA 30A
F90UA 20A
F91UA 15A
F92UA 10A
F60UA 10A
F67UA 10A

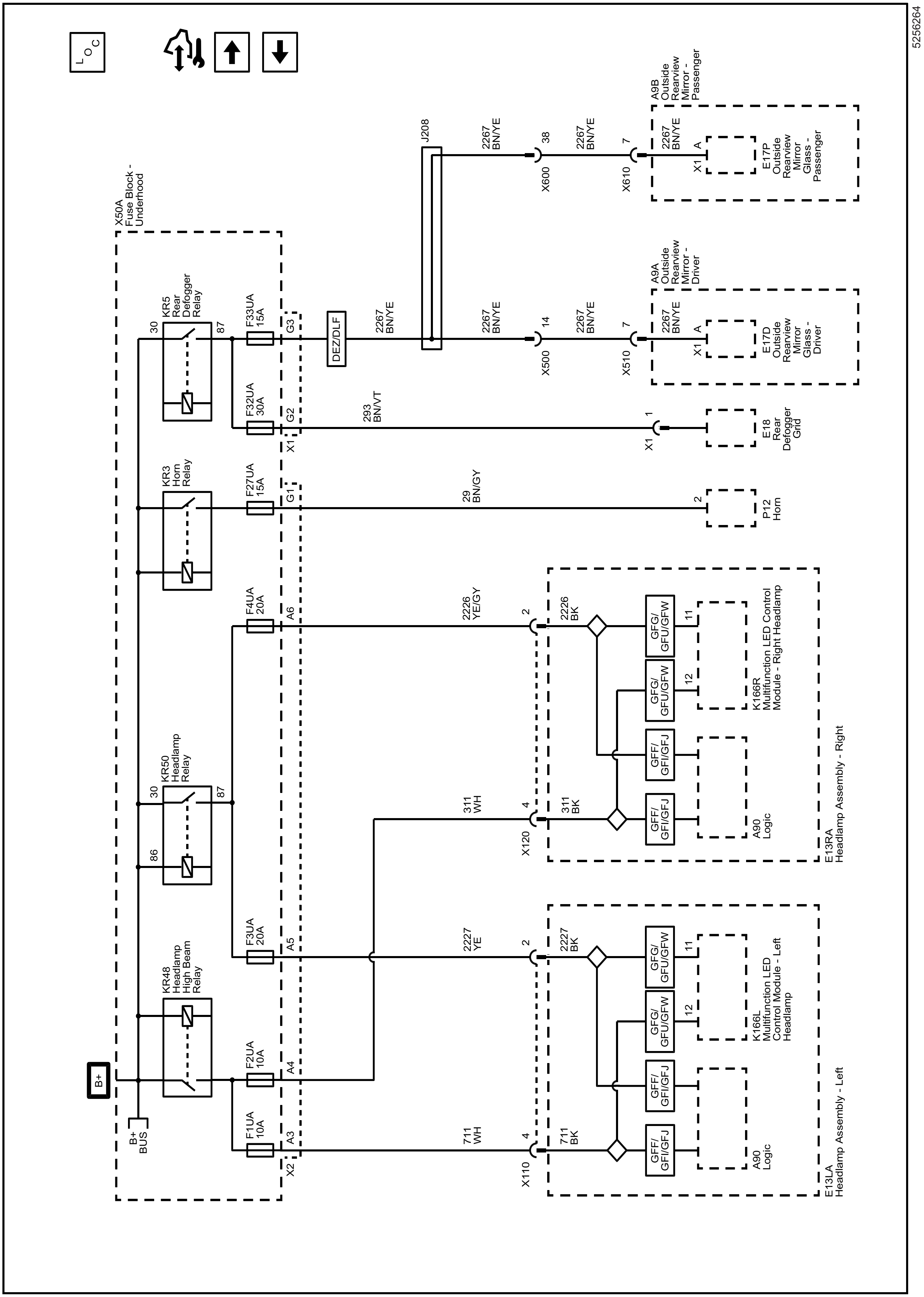
Power Distribution Schematics (X50A Underhood Fuse Block Bussing (2 of 2))


5256261
L O C
X50A Fuse Block - Underhood
A B+ BUS
F52UA 25A
KR12C Windshield Wiper Speed Control Relay
KR12B Windshield Wiper Relay
KR11 Windshield Washer Pump Relay
F13UA 15A
KR6 Rear Window Washer Pump Relay
F14UA 15A
KR61 Trailer Backup Lamps Relay
F54UA 10A
F55UA 10A
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
F73UA 10A
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
F81UA 10A
KR59 Stop Lamp Relay
F53UA 10A
X4 - A1 (Not Used)
KR46 Front Fog Lamp Relay
F8UA 15A
KR48 Headlamp High Beam Relay
F1UA 10A
F2UA 10A
KR50 Headlamp Relay
86
30
87
F3UA 20A
F4UA 20A
KR5 Rear Defogger Relay
30
87
F32UA 30A
F33UA 15A
KR53 Park Lamps Relay
86
30
87
F41UA 20A
F34UA 15A
F42UA 15A
X2 - H2 (Not Used)
KR80 Accessory Relay
86
30
87
F19UA 60A
F69UA 40A
KR27C Starter Pinion Solenoid Actuator Relay
30
F58UA 30A
KR27 Starter Relay
30
KR3 Horn Relay
F27UA 15A

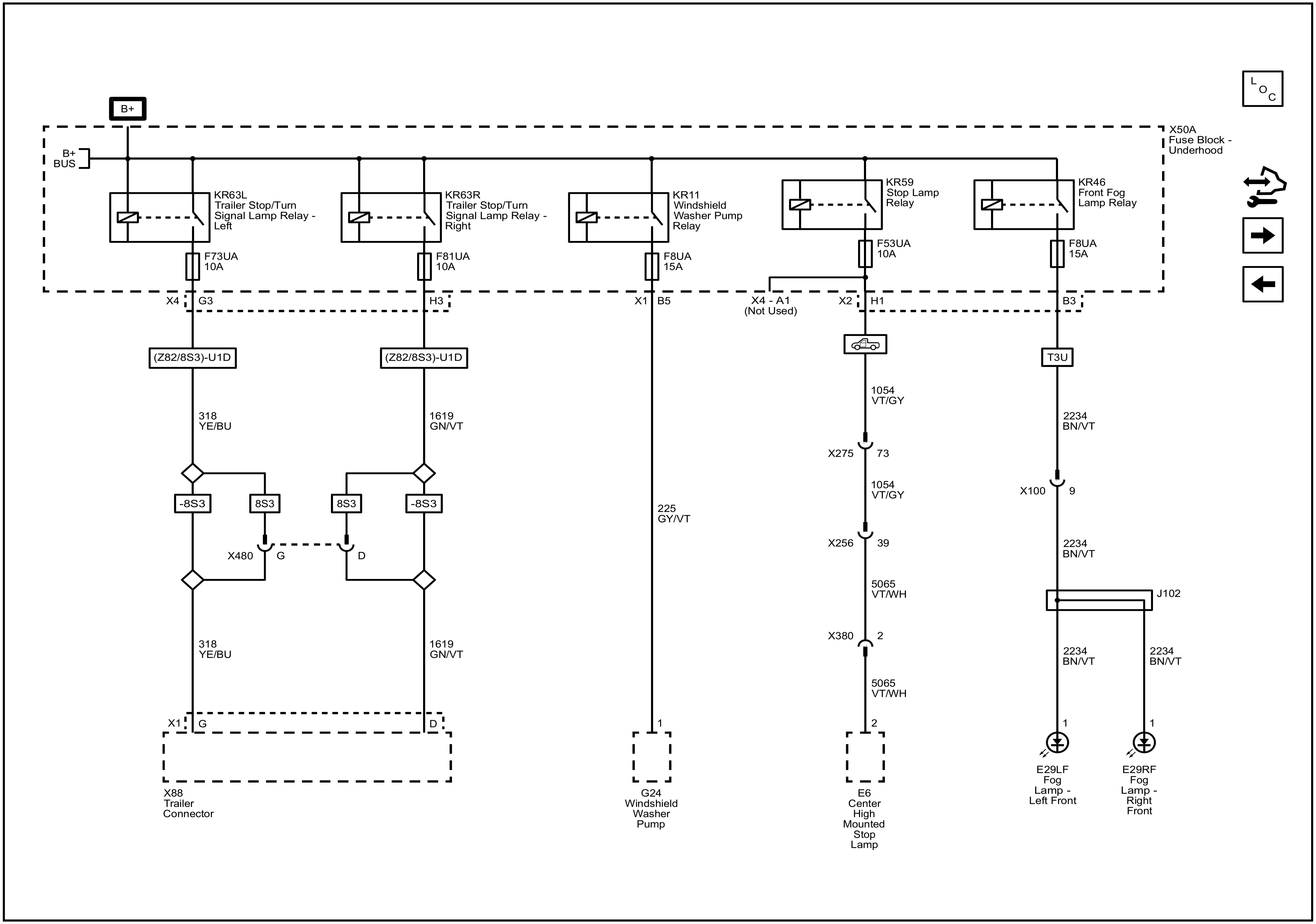
Power Distribution Schematics (F1UA, F2UA, F3UA, F4UA, F27UA, F32UA, and F33UA Fuses (X88))


B+
B+ BUS
X50A Fuse Block - Underhood
KR48 Headlamp High Beam Relay
86
30
KR50 Headlamp Relay
87
KR3 Horn Relay
30
KR5 Rear Defogger Relay
87
F1UA 10A
F2UA 10A
F3UA 20A
F4UA 20A
F27UA 15A
F32UA 30A
F33UA 15A
X2
A3
A4
A5
A6
G1
X1
G2
G3
DEZ/DLF
293 BN/VT
2267 BN/YE
J208
711 WH
2227 YE
311 WH
2226 YE/GY
29 BN/GY
2267 BN/YE
2267 BN/YE
X110
4
2
X120
4
2
X500
14
X600
38
711 BK
2227 BK
311 BK
2226 BK
2267 BN/YE
2267 BN/YE
X510
7
X610
7
X1
1
GF2/GF5/ GPZ
GF3/GF4/ GF9/GPZ
GF3/GF4/ GF9/GPZ
GFD
GFD
GF2/GF5/ GPZ
GF3/GF4/ GF9/GPZ
GF3/GF4/ GF9/GPZ
GFD
GFD
1
12
11
1
12
11
2
A9A Outside Rearview Mirror - Driver
2267 BN/YE
X1
A
A9B Outside Rearview Mirror - Passenger
2267 BN/YE
X1
A
E4E Headlamp - Left High Beam
A90 Logic
K166L Multifunction LED Control Module - Left Headlamp
E4F Headlamp - Right High Beam
A90 Logic
K166R Multifunction LED Control Module - Right Headlamp
P12 Horn
E18 Rear Defogger Grid
E17D Outside Rearview Mirror Glass - Driver
E17P Outside Rearview Mirror Glass - Passenger
E13LA Headlamp Assembly - Left
E13RA Headlamp Assembly - Right
5256262

Power Distribution Schematics (F1UA, F2UA, F3UA, F4UA, F27UA, F32UA, and F33UA Fuses (Z88))

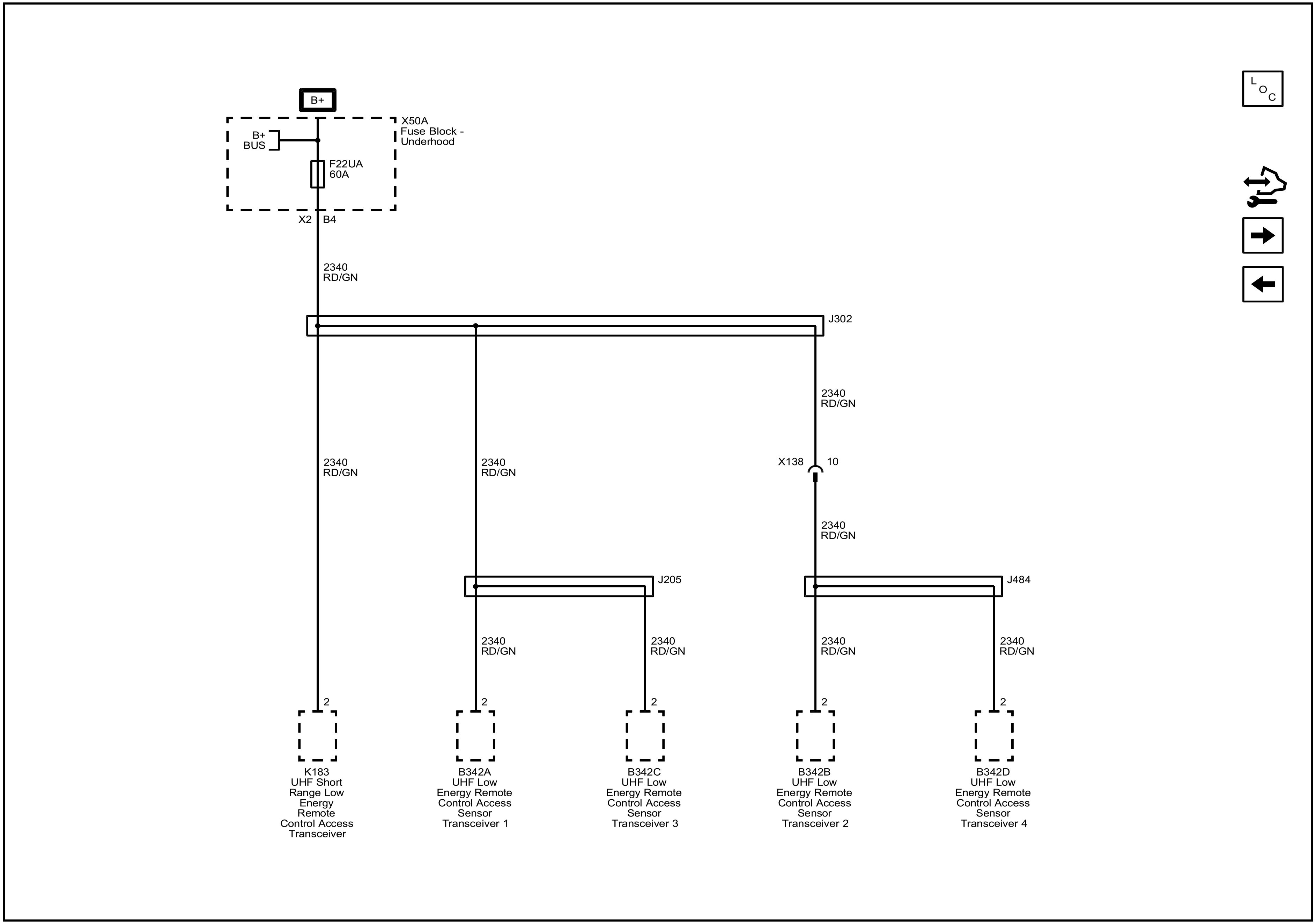

LOC
5256264
X50A Fuse Block - Underhood
B+
B+ BUS
KR48 Headlamp High Beam Relay
KR50 Headlamp Relay
86
30
87
KR3 Horn Relay
KR5 Rear Defogger Relay
30
87
F1UA 10A
F2UA 10A
F3UA 20A
F4UA 20A
F27UA 15A
F32UA 30A
F33UA 15A
X2
A3
A4
A5
A6
G1
X1
G2
G3
DEZ/DLF
J208
711 WH
2227 YE
311 WH
2226 YE/GY
29 BN/GY
293 BN/VT
2267 BN/YE
X110
4
2
X120
4
2
X500
14
X600
38
2267 BN/YE
X510
7
X610
7
711 BK
2227 BK
311 BK
2226 BK
GFF/GFI/GFJ
GFG/GFU/GFW
11
12
A90 Logic
K166L Multifunction LED Control Module - Left Headlamp
E13LA Headlamp Assembly - Left
A90 Logic
K166R Multifunction LED Control Module - Right Headlamp
E13RA Headlamp Assembly - Right
2
P12 Horn
X1
1
E18 Rear Defogger Grid
A9A Outside Rearview Mirror - Driver
2267 BN/YE
X1 A
E17D Outside Rearview Mirror Glass - Driver
A9B Outside Rearview Mirror - Passenger
2267 BN/YE
X1 A
E17P Outside Rearview Mirror Glass - Passenger

Power Distribution Schematics (F8UA, F13UA, F53UA, F73UA, and F81UA Fuses)


LOC
B+
B+ BUS
X50A Fuse Block - Underhood
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
KR11 Windshield Washer Pump Relay
KR59 Stop Lamp Relay
KR46 Front Fog Lamp Relay
F73UA 10A
F81UA 10A
F8UA 15A
F53UA 10A
F8UA 15A
X4 G3
H3
X1 B5
X4 - A1 (Not Used)
X2 H1
B3
(Z82/8S3)-U1D
(Z82/8S3)-U1D
T3U
318 YE/BU
1619 GN/VT
225 GY/VT
1054 VT/GY
2234 BN/VT
X275 73
X100 9
-8S3
8S3
8S3
-8S3
X480 G
D
X256 39
5065 VT/WH
J102
X380 2
X1 G
D
1
2
1
1
X88 Trailer Connector
G24 Windshield Washer Pump
E6 Center High Mounted Stop Lamp
E29LF Fog Lamp - Left Front
E29RF Fog Lamp - Right Front

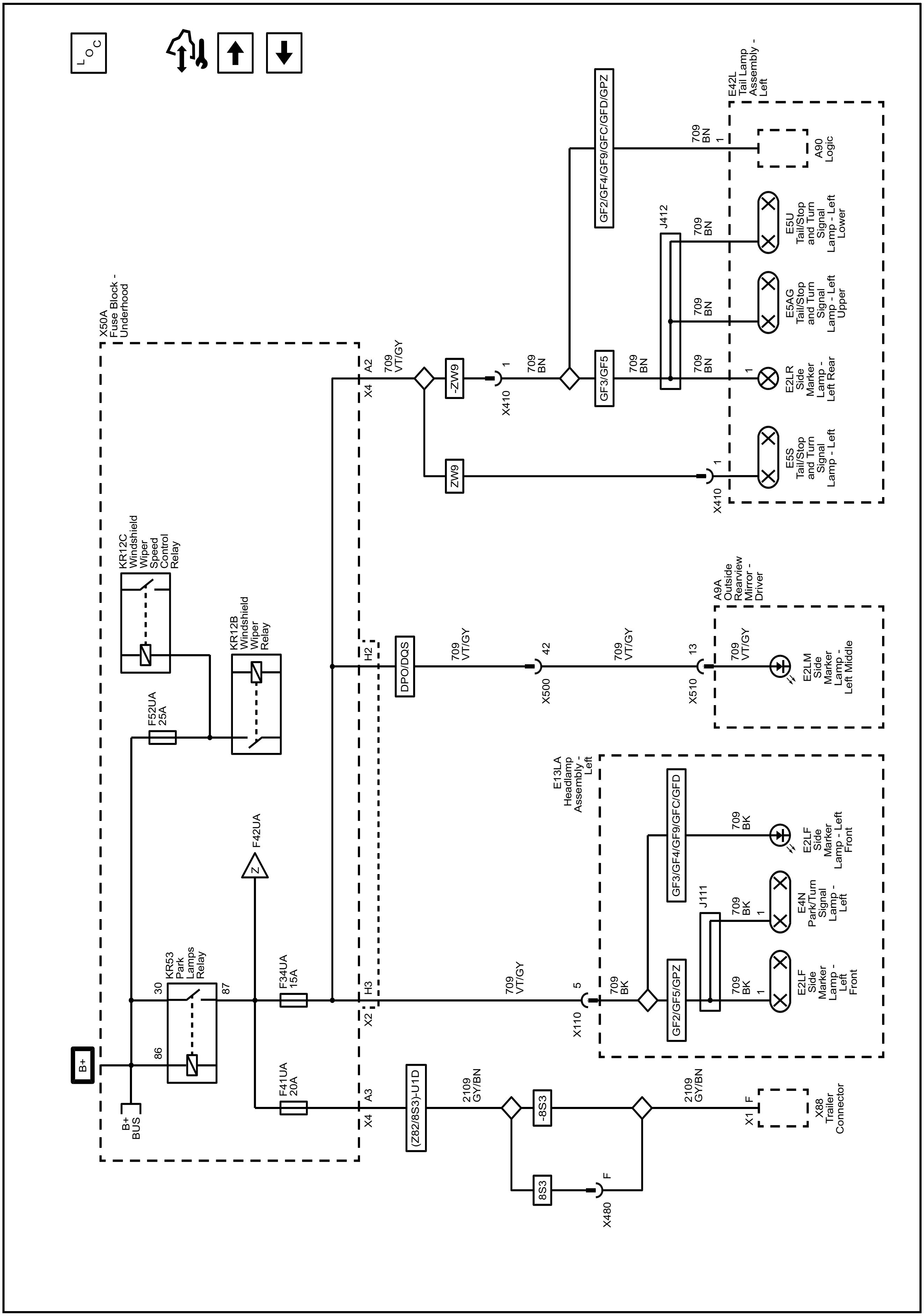
5256267

Power Distribution Schematics (F9UA Fuse (BOP))

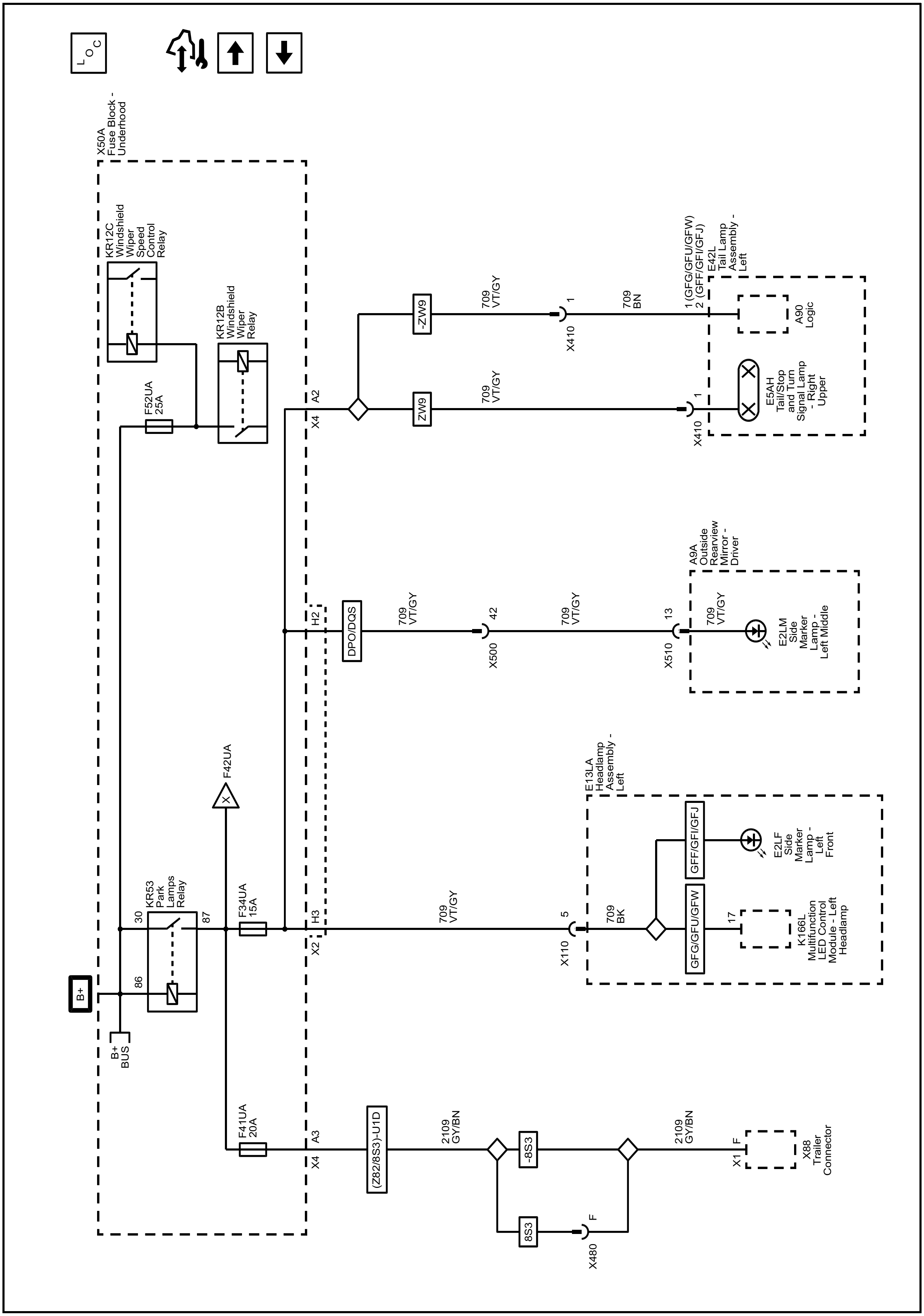

L O C
B+
B+ BUS
X50A Fuse Block - Underhood
F22UA 60A
X2 B4
2340 RD/GN
J302
2340 RD/GN
2340 RD/GN
2340 RD/GN
X138 10
2340 RD/GN
J205
J484
2340 RD/GN
2340 RD/GN
2340 RD/GN
2340 RD/GN
2
2
2
2
2
K183 UHF Short Range Low Energy Remote Control Access Transceiver
B342A UHF Low Energy Remote Control Access Sensor Transceiver 1
B342C UHF Low Energy Remote Control Access Sensor Transceiver 3
B342B UHF Low Energy Remote Control Access Sensor Transceiver 2
B342D UHF Low Energy Remote Control Access Sensor Transceiver 4

5339789

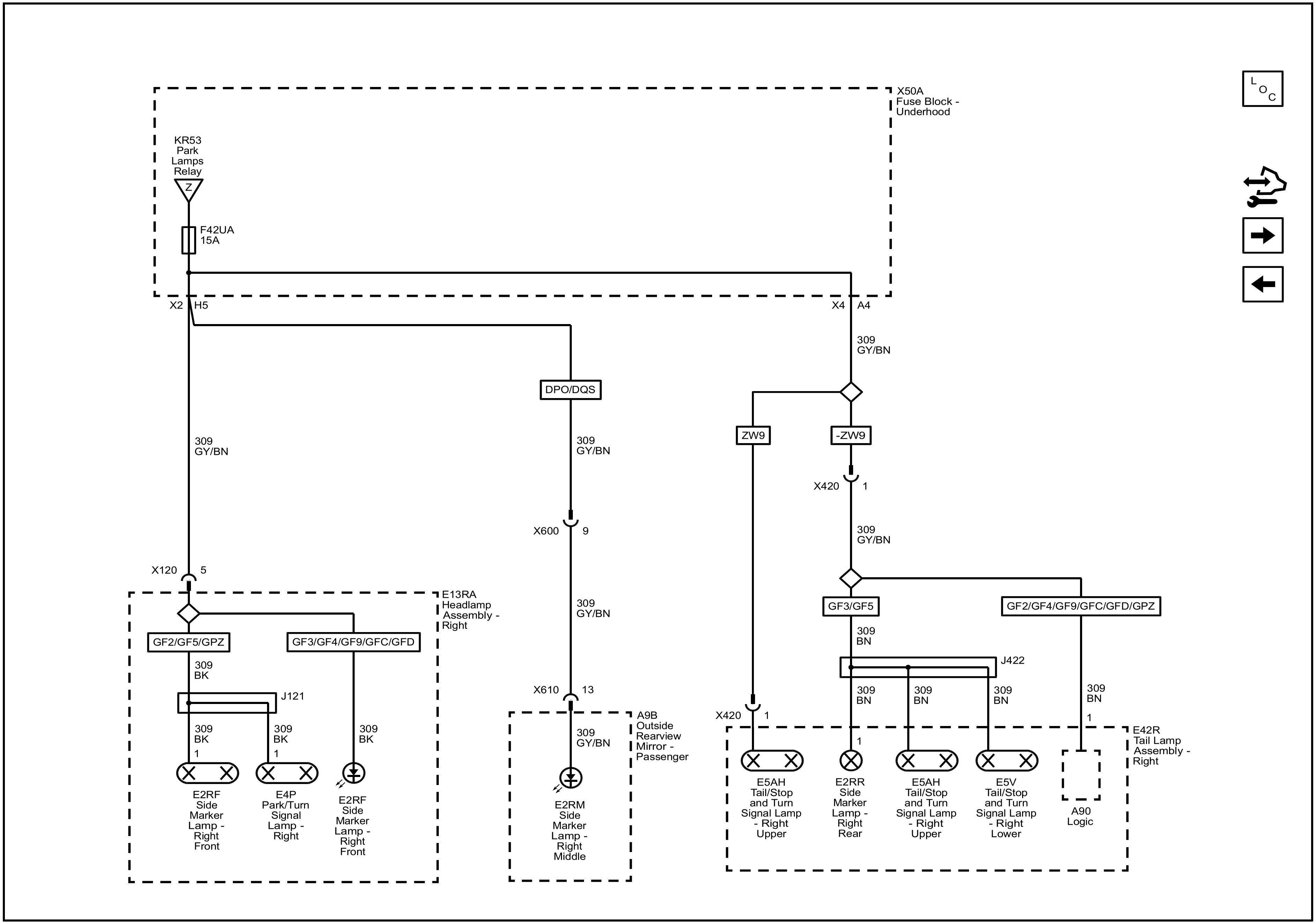
Power Distribution Schematics (F34UA, F41UA, and F52UA Fuses (X88))


L O C
5256268
B+
B+ BUS
X50A Fuse Block - Underhood
KR53 Park Lamps Relay
30
86
87
F52UA 25A
KR12B Windshield Wiper Relay
KR12C Windshield Wiper Speed Control Relay
F42UA
F34UA 15A
F41UA 20A
X4 A2
709 VT/GY
H2
H3
X2
X4 A3
-ZW9
ZW9
X410 1
709 BN
GF3/GF5
GF2/GF4/GF9/GFC/GFD/GPZ
J412
709 BN 1
E42L Tail Lamp Assembly - Left
A90 Logic
E5U Tail/Stop and Turn Signal Lamp - Left Lower
E5AG Tail/Stop and Turn Signal Lamp - Left Upper
E2LR Side Marker Lamp - Left Rear
E5S Tail/Stop and Turn Signal Lamp - Left
DPO/DQS
X500 42
X510 13
A9A Outside Rearview Mirror - Driver
E2LM Side Marker Lamp - Left Middle
X110 5
709 BK
GF2/GF5/GPZ
GF3/GF4/GF9/GFC/GFD
J111
E13LA Headlamp Assembly - Left
E2LF Side Marker Lamp - Left Front
E4N Park/Turn Signal Lamp - Left
E2LF Side Marker Lamp - Left Front
(Z82/8S3)-U1D
2109 GY/BN
-8S3
8S3
X480 F
X1 F
X88 Trailer Connector

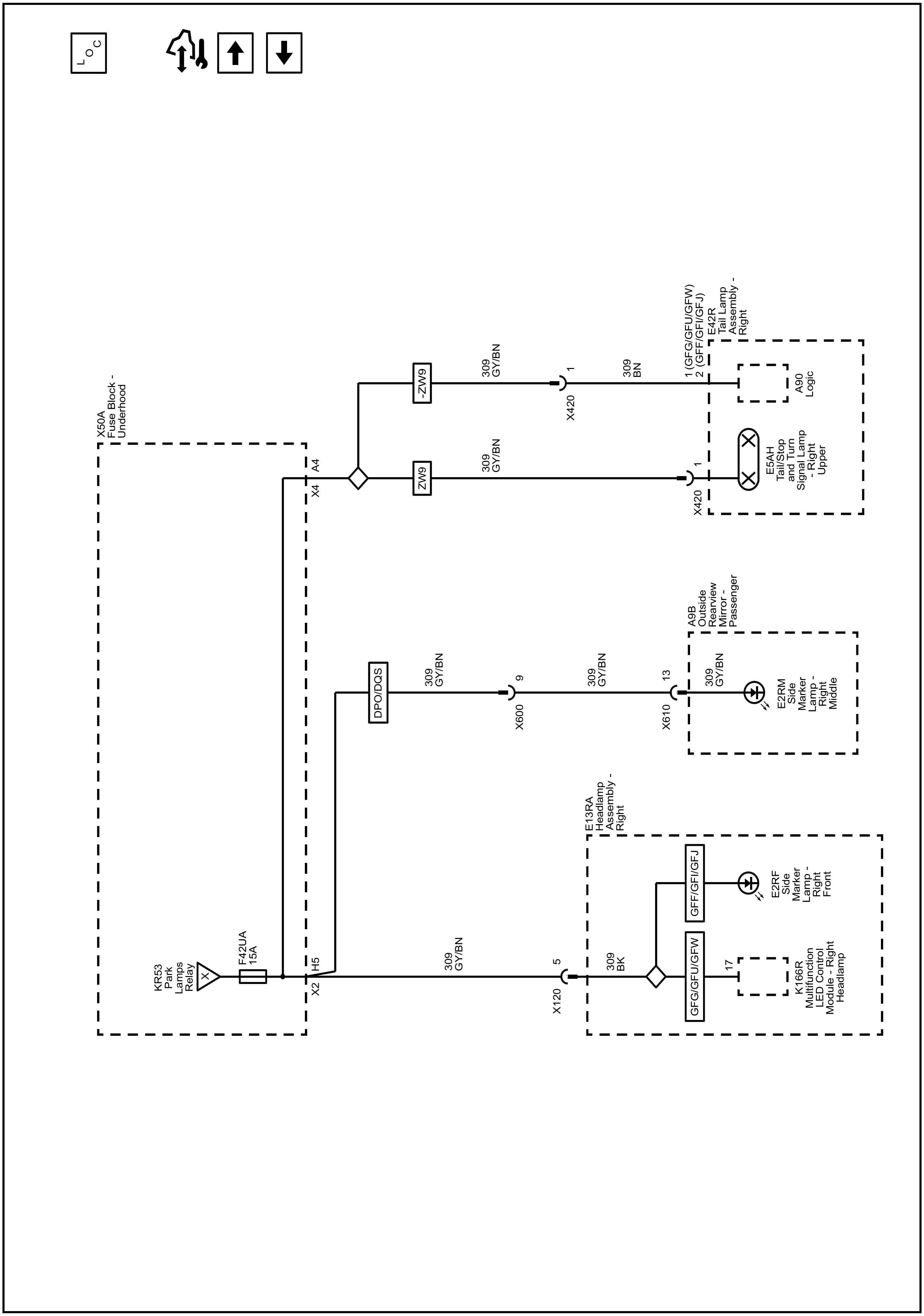
Power Distribution Schematics (F34UA, F41UA, and F52UA Fuses (Z88))


5256272
L O C
X50A Fuse Block - Underhood
KR12C Windshield Wiper Speed Control Relay
KR12B Windshield Wiper Relay
F52UA 25A
KR53 Park Lamps Relay
30
86
87
B+
B+ BUS
F42UA
F34UA 15A
F41UA 20A
X4 A2
H2
X2 H3
X4 A3
-ZW9
ZW9
DPO/DQS
(Z82/8S3)-U1D
-8S3
8S3
709 VT/GY
709 BN
709 BK
2109 GY/BN
X410 1
X500 42
X510 13
X110 5
X480 F
X1 F
1 (GFG/GFU/GFW)
2 (GFF/GFI/GFJ)
E42L Tail Lamp Assembly - Left
A90 Logic
E5AH Tail/Stop and Turn Signal Lamp - Right Upper
A9A Outside Rearview Mirror - Driver
E2LM Side Marker Lamp - Left Middle
E13LA Headlamp Assembly - Left
GFF/GFI/GFJ
GFG/GFU/GFW
E2LF Side Marker Lamp - Left Front
17
K166L Multifunction LED Control Module - Left Headlamp
X88 Trailer Connector

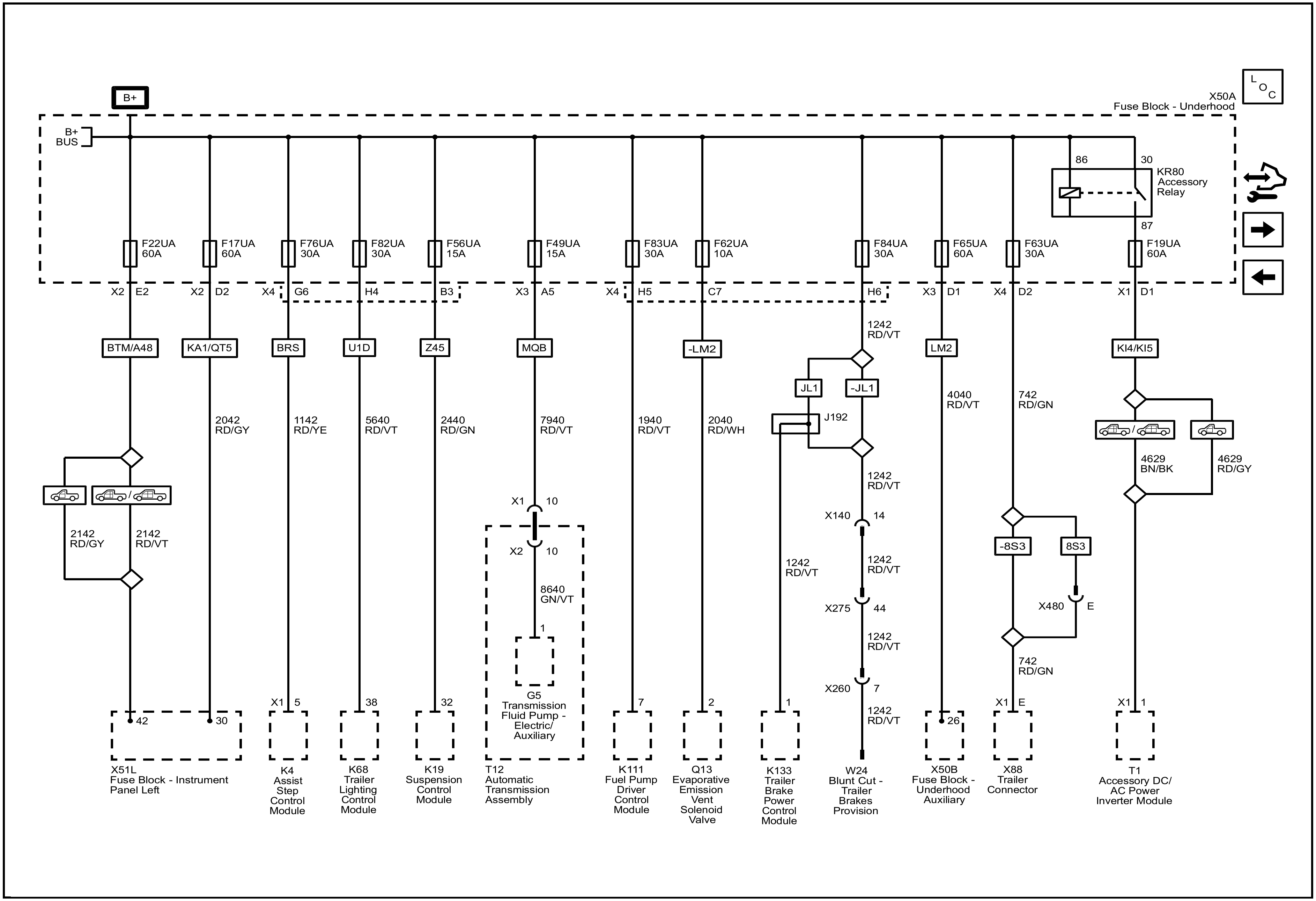
Power Distribution Schematics (F42UA Fuse (X88))


L O C
X50A
Fuse Block -
Underhood
KR53
Park
Lamps
Relay
Z
F42UA
15A
X2
H5
X4
A4
309
GY/BN
DPO/DQS
ZW9
-ZW9
X420
1
X600
9
X120
5
E13RA
Headlamp
Assembly -
Right
GF2/GF5/GPZ
GF3/GF4/GF9/GFC/GFD
309
BK
J121
1
E2RF
Side
Marker
Lamp -
Right
Front
E4P
Park/Turn
Signal
Lamp -
Right
X610
13
A9B
Outside
Rearview
Mirror -
Passenger
E2RM
Side
Marker
Lamp -
Right
Middle
GF3/GF5
GF2/GF4/GF9/GFC/GFD/GPZ
309
BN
J422
E42R
Tail Lamp
Assembly -
Right
E5AH
Tail/Stop
and Turn
Signal Lamp
- Right
Upper
E2RR
Side
Marker
Lamp -
Right
Rear
E5V
Tail/Stop
and Turn
Signal Lamp
- Right
Lower
A90
Logic
5256270

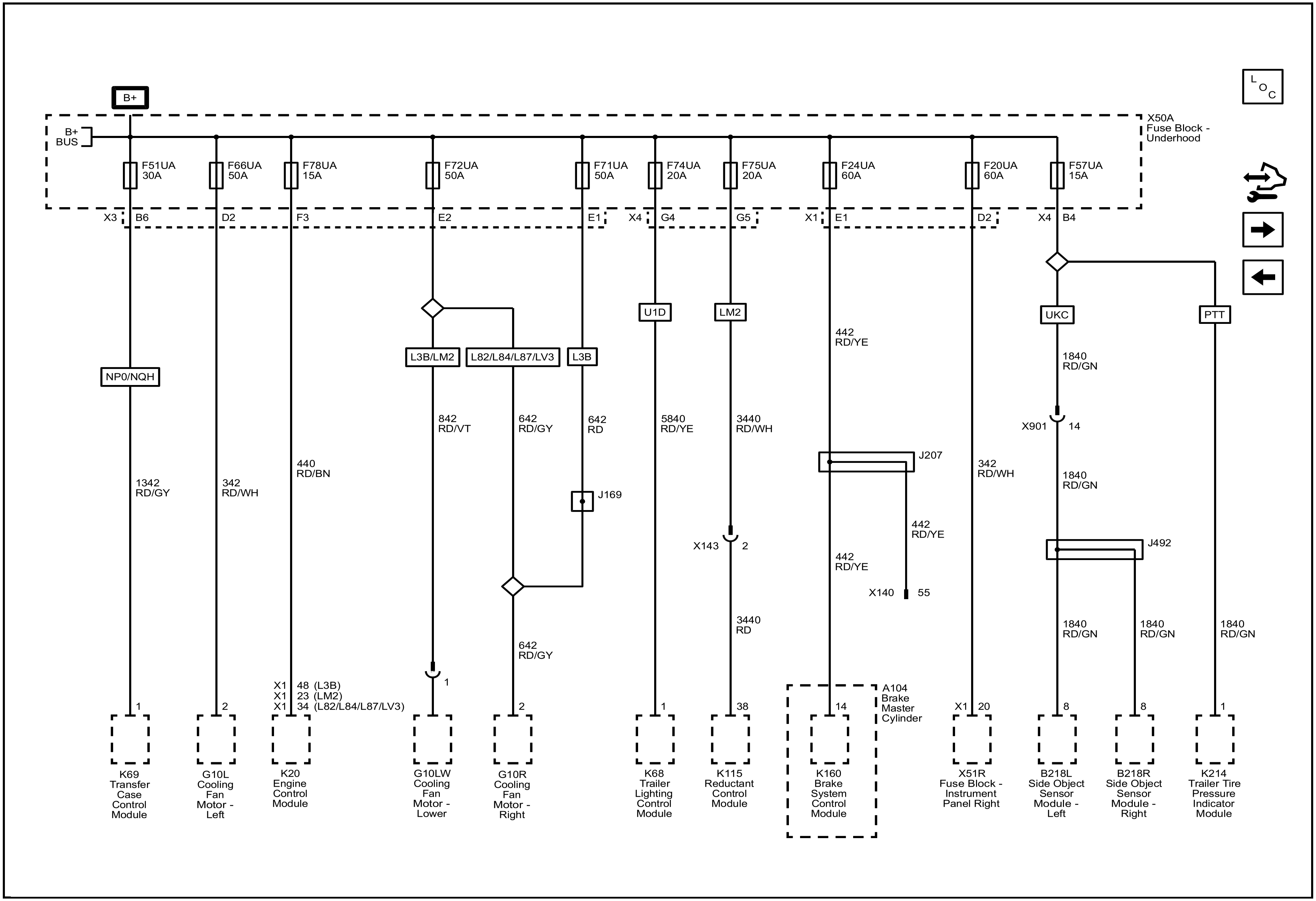
Power Distribution Schematics (F42UA Fuse (Z88))


5299356
X50A
Fuse Block -
Underhood
KR53
Park
Lamps
Relay
X
F42UA
15A
X2
H5
X4
A4
309
GY/BN
DPO/DQS
ZW9
-ZW9
X600
9
X610
13
X120
5
309
BK
X420
1
309
BN
1 (GFG/GFU/GFW)
2 (GFF/GFI/GFJ)
E42R
Tail Lamp
Assembly -
Right
A90
Logic
E5AH
Tail/Stop
and Turn
Signal Lamp
- Right
Upper
A9B
Outside
Rearview
Mirror -
Passenger
E2RM
Side
Marker
Lamp -
Right
Middle
E13RA
Headlamp
Assembly -
Right
GFG/GFU/GFW
GFF/GFI/GFJ
17
K166R
Multifunction
LED Control
Module - Right
Headlamp
E2RF
Side
Marker
Lamp -
Right
Front

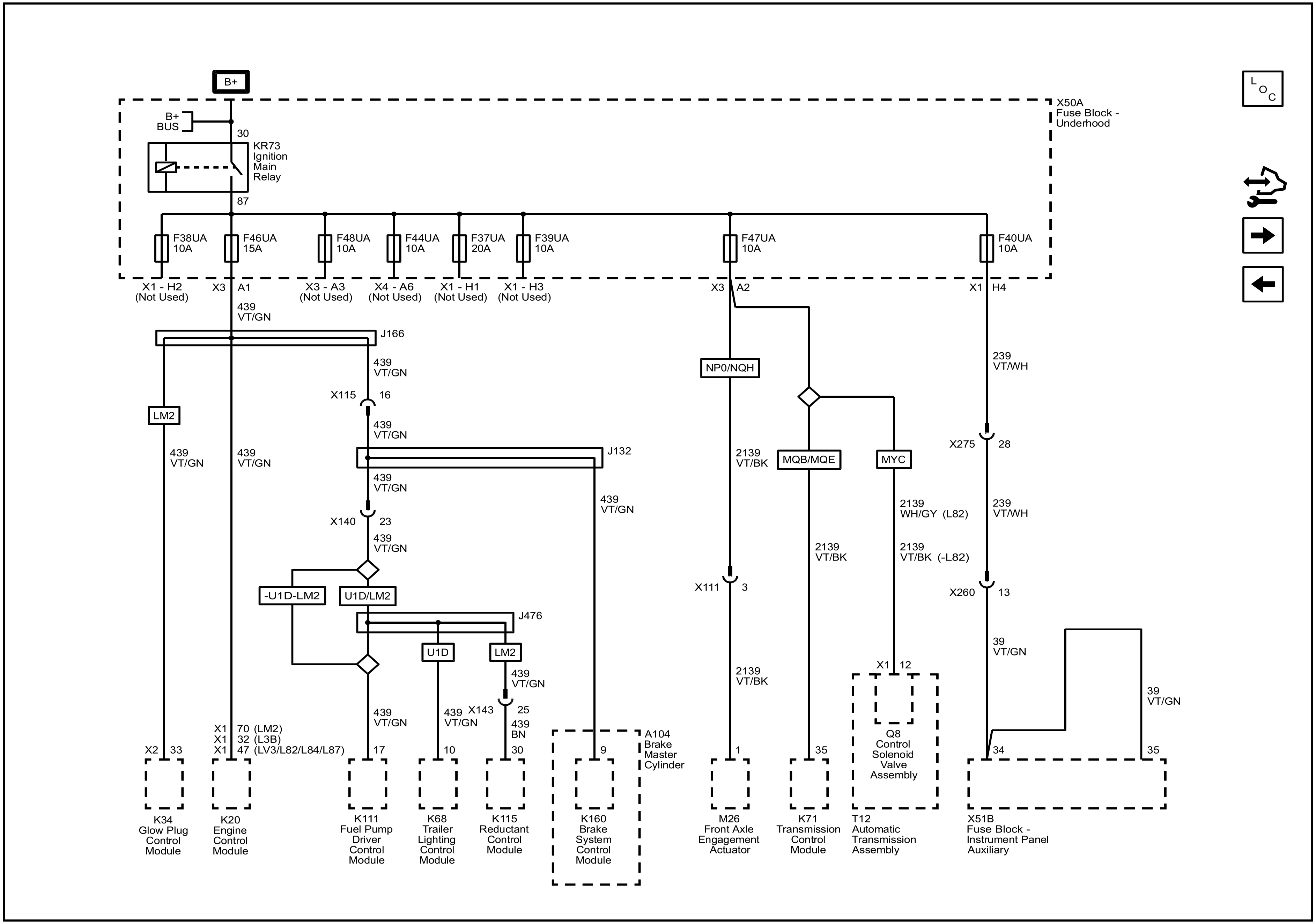
Power Distribution Schematics (F17UA, F19UA, F22UA, F49UA, F56UA, F62UA, F63UA, F65UA, F76UA, F82UA, F83UA, and F84UA Fuses)


L O C
X50A
Fuse Block - Underhood
B+
B+ BUS
86
30
KR80
Accessory
Relay
87
F22UA 60A
F17UA 60A
F76UA 30A
F82UA 30A
F56UA 15A
F49UA 15A
F83UA 30A
F62UA 10A
F84UA 30A
F65UA 60A
F63UA 30A
F19UA 60A
X2 E2
X2 D2
X4 G6
H4
B3
X3 A5
X4 H5
C7
H6
X3 D1
X4 D2
X1 D1
BTM/A48
KA1/QT5
BRS
U1D
Z45
MQB
-LM2
1242 RD/VT
LM2
KI4/KI5
JL1
-JL1
J192
4040 RD/VT
742 RD/GN
2042 RD/GY
1142 RD/YE
5640 RD/VT
2440 RD/GN
7940 RD/VT
1940 RD/VT
2040 RD/WH
4629 BN/BK
4629 RD/GY
2142 RD/GY
2142 RD/VT
X1 10
X2 10
8640 GN/VT
1
X140 14
1242 RD/VT
X275 44
X260 7
-8S3
8S3
X480 E
742 RD/GN
42
30
X1 5
38
32
7
2
1
26
X1 E
X1 1
G5
Transmission
Fluid Pump -
Electric/
Auxiliary
X51L
Fuse Block - Instrument
Panel Left
K4
Assist
Step
Control
Module
K68
Trailer
Lighting
Control
Module
K19
Suspension
Control
Module
T12
Automatic
Transmission
Assembly
K111
Fuel Pump
Driver
Control
Module
Q13
Evaporative
Emission
Vent
Solenoid
Valve
K133
Trailer
Brake
Power
Control
Module
W24
Blunt Cut -
Trailer
Brakes
Provision
X50B
Fuse Block -
Underhood
Auxiliary
X88
Trailer
Connector
T1
Accessory DC/
AC Power
Inverter Module
5256273

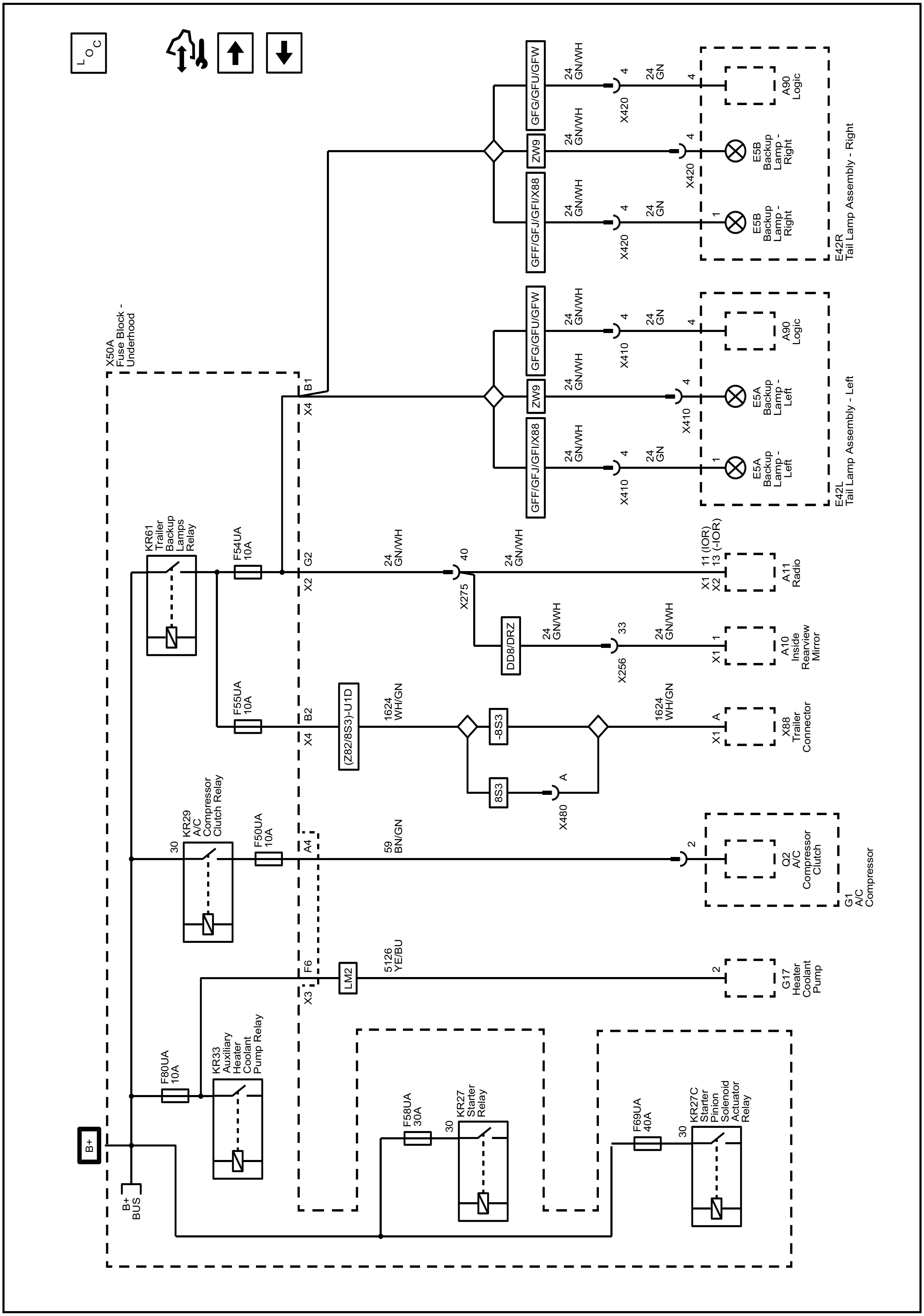
Power Distribution Schematics (F20UA, F24UA, F51UA, F57UA, F66UA, F71UA, F72UA, F74UA, F75UA, and F78UA Fuses)


B+
B+ BUS
X50A Fuse Block - Underhood
F51UA 30A
F66UA 50A
F78UA 15A
F72UA 50A
F71UA 50A
F74UA 20A
F75UA 20A
F24UA 60A
F20UA 60A
F57UA 15A
X3 B6
D2
F3
E2
E1
X4 G4
G5
X1 E1
D2
X4 B4
NP0/NQH
1342 RD/GY
342 RD/WH
440 RD/BN
L3B/LM2
L82/L84/L87/LV3
L3B
842 RD/VT
642 RD/GY
642 RD
J169
642 RD/GY
U1D
5840 RD/YE
LM2
3440 RD/WH
X143 2
3440 RD
442 RD/YE
J207
442 RD/YE
X140 55
442 RD/YE
342 RD/WH
UKC
1840 RD/GN
X901 14
1840 RD/GN
J492
1840 RD/GN
1840 RD/GN
PTT
1840 RD/GN
1
2
X1 48 (L3B)
X1 23 (LM2)
X1 34 (L82/L84/L87/LV3)
1
2
1
38
14
A104 Brake Master Cylinder
X1 20
8
8
1
K69 Transfer Case Control Module
G10L Cooling Fan Motor - Left
K20 Engine Control Module
G10LW Cooling Fan Motor - Lower
G10R Cooling Fan Motor - Right
K68 Trailer Lighting Control Module
K115 Reductant Control Module
K160 Brake System Control Module
X51R Fuse Block - Instrument Panel Right
B218L Side Object Sensor Module - Left
B218R Side Object Sensor Module - Right
K214 Trailer Tire Pressure Indicator Module
L O C
5256274

Power Distribution Schematics (F37UA, F38UA, F39UA, F40UA, F44UA, F46UA, F47UA, and F48UA Fuses)

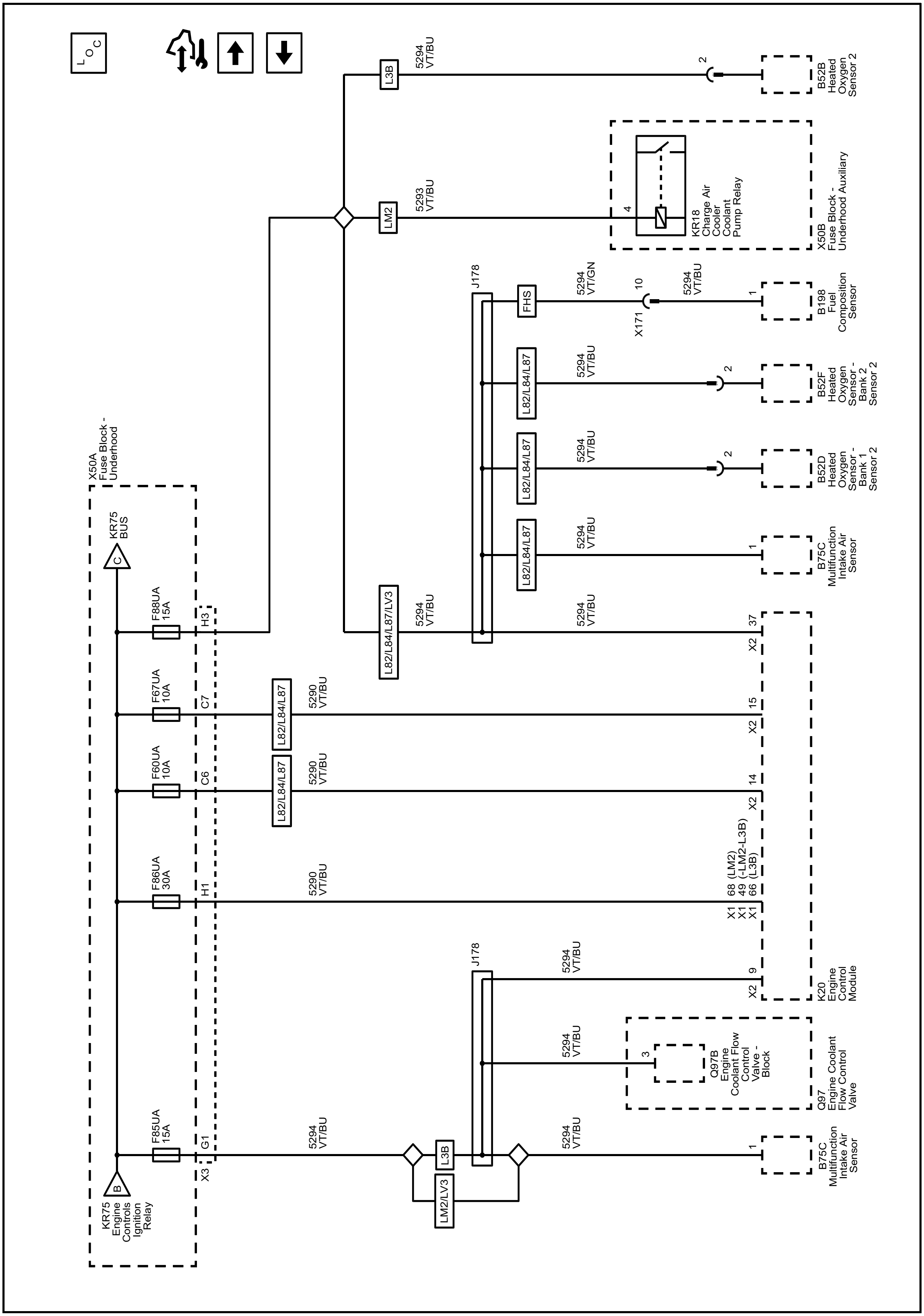

L O C
B+
B+ BUS
30
KR73 Ignition Main Relay
87
X50A Fuse Block - Underhood
F38UA 10A
F46UA 15A
F48UA 10A
F44UA 10A
F37UA 20A
F39UA 10A
F47UA 10A
F40UA 10A
X1 - H2 (Not Used)
X3 A1
X3 - A3 (Not Used)
X4 - A6 (Not Used)
X1 - H1 (Not Used)
X1 - H3 (Not Used)
X3 A2
X1 H4
439 VT/GN
J166
LM2
X115 16
J132
X140 23
-U1D-LM2
U1D/LM2
J476
U1D
LM2
X143 25
439 BN
A104 Brake Master Cylinder
X2 33
X1 70 (LM2)
X1 32 (L3B)
X1 47 (LV3/L82/L84/L87)
17
10
30
9
K34 Glow Plug Control Module
K20 Engine Control Module
K111 Fuel Pump Driver Control Module
K68 Trailer Lighting Control Module
K115 Reductant Control Module
K160 Brake System Control Module
NP0/NQH
MQB/MQE
MYC
2139 VT/BK
2139 WH/GY (L82)
2139 VT/BK (-L82)
X111 3
1
35
X1 12
M26 Front Axle Engagement Actuator
K71 Transmission Control Module
Q8 Control Solenoid Valve Assembly
T12 Automatic Transmission Assembly
239 VT/WH
X275 28
X260 13
39 VT/GN
34
35
X51B Fuse Block - Instrument Panel Auxiliary
5256277

Power Distribution Schematics (F50UA, F54UA, F55UA, F58UA, F69UA, and F80UA Fuses)

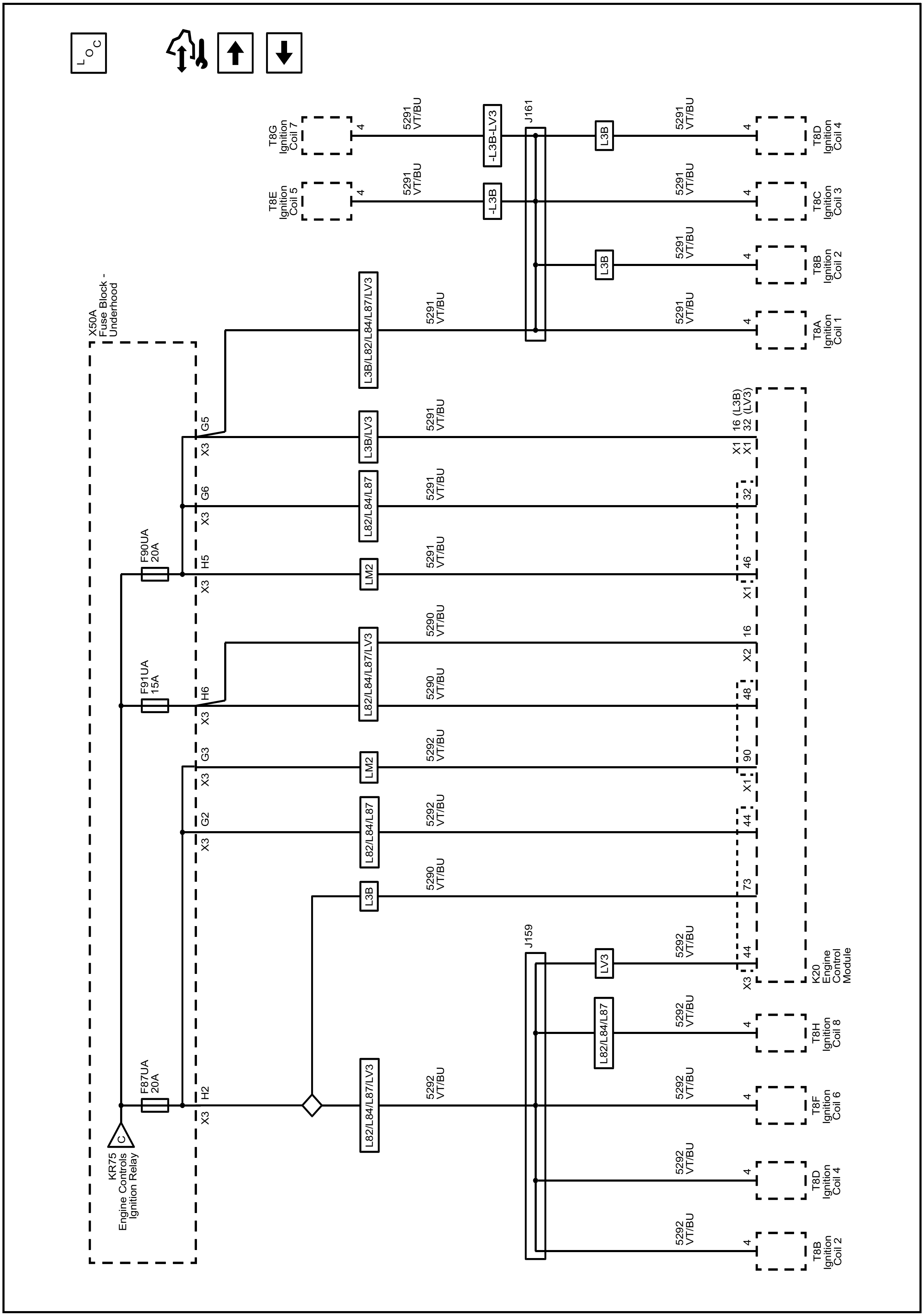

LOC
B+
B+ BUS
X50A Fuse Block - Underhood
F80UA 10A
KR33 Auxiliary Heater Coolant Pump Relay
X3 F6
LM2
5126 YE/BU
2
G17 Heater Coolant Pump
KR29 A/C Compressor Clutch Relay
30
F50UA 10A
A4
59 BN/GN
2
Q2 A/C Compressor Clutch
G1 A/C Compressor
F55UA 10A
X4 B2
(Z82/8S3)-U1D
1624 WH/GN
-8S3
8S3
A
X480
1624 WH/GN
X1 A
X88 Trailer Connector
KR61 Trailer Backup Lamps Relay
F54UA 10A
X2 G2
24 GN/WH
40
X275
24 GN/WH
X1 11 (IOR)
X2 13 (-IOR)
A11 Radio
DD8/DRZ
24 GN/WH
33
X256
24 GN/WH
X1 1
A10 Inside Rearview Mirror
X4 B1
GFF/GFJ/GFI/X88
ZW9
GFG/GFU/GFW
24 GN/WH
4
X410
24 GN
1
4
E5A Backup Lamp - Left
A90 Logic
E42L Tail Lamp Assembly - Left
X420
E5B Backup Lamp - Right
E42R Tail Lamp Assembly - Right
F58UA 30A
KR27 Starter Relay
F69UA 40A
KR27C Starter Pinion Solenoid Actuator Relay

5256278

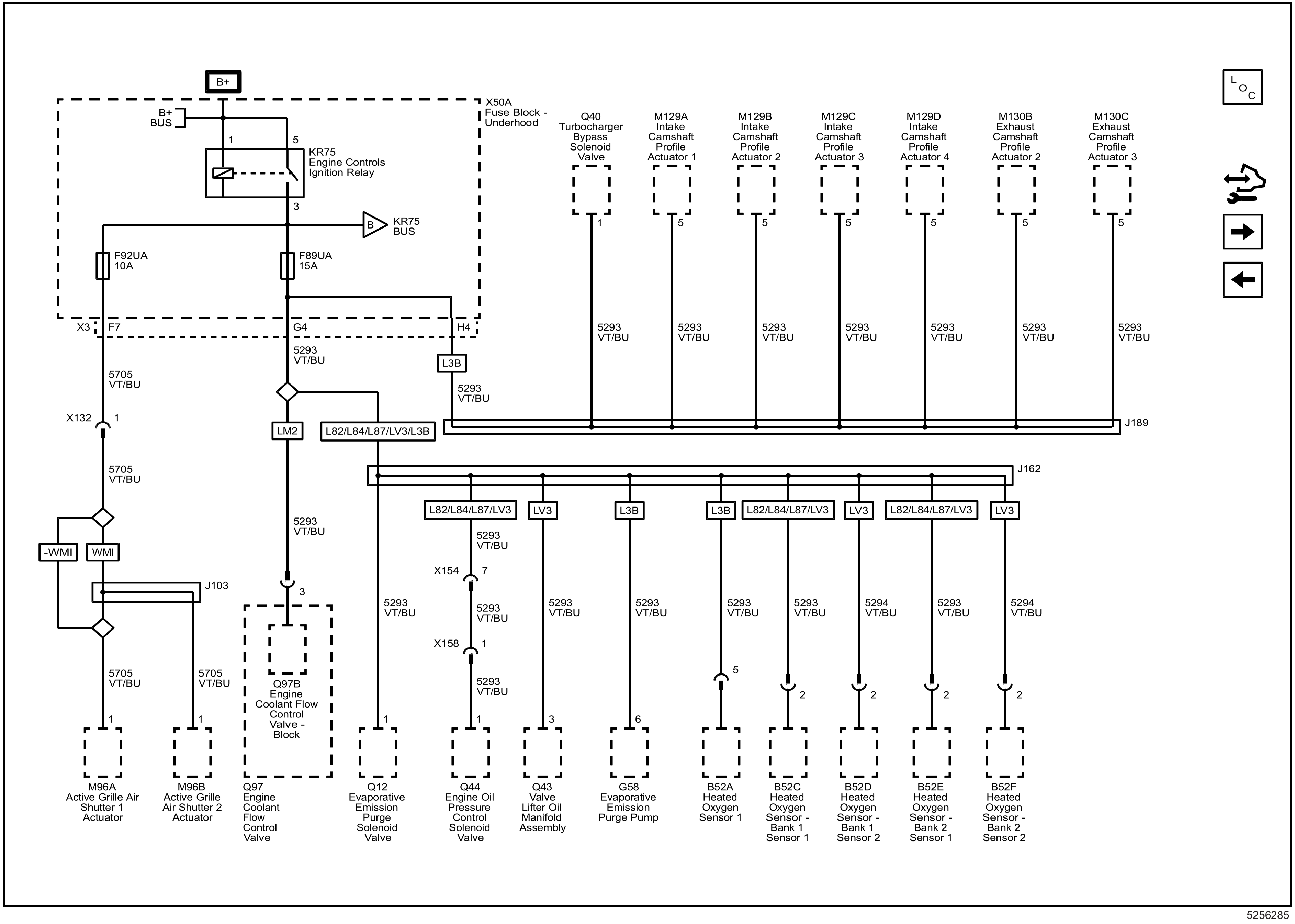
Power Distribution Schematics (F60UA, F67UA, F85UA, F86UA, and F88UA Fuses)


5256280
L O C
X50A Fuse Block - Underhood
KR75 BUS
C
B
KR75 Engine Controls Ignition Relay
F88UA 15A
F67UA 10A
F60UA 10A
F86UA 30A
F85UA 15A
H3
C7
C6
H1
G1
X3
L3B
5294 VT/BU
2
B52B Heated Oxygen Sensor 2
LM2
5293 VT/BU
4
KR18 Charge Air Cooler Coolant Pump Relay
X50B Fuse Block - Underhood Auxiliary
J178
FHS
5294 VT/GN
10
X171
5294 VT/BU
1
B198 Fuel Composition Sensor
L82/L84/L87
5294 VT/BU
2
B52F Heated Oxygen Sensor - Bank 2 Sensor 2
L82/L84/L87
5294 VT/BU
2
B52D Heated Oxygen Sensor - Bank 1 Sensor 2
L82/L84/L87
5294 VT/BU
1
B75C Multifunction Intake Air Sensor
L82/L84/L87/LV3
5294 VT/BU
5294 VT/BU
X2 37
L82/L84/L87
5290 VT/BU
X2 15
L82/L84/L87
5290 VT/BU
X2 14
5290 VT/BU
X1 68 (LM2)
X1 49 (-LM2-L3B)
X1 66 (L3B)
J178
5294 VT/BU
X2 9
K20 Engine Control Module
5294 VT/BU
3
Q97B Engine Coolant Flow Control Valve - Block
Q97 Engine Coolant Flow Control Valve
5294 VT/BU
L3B
LM2/LV3
5294 VT/BU
1
B75C Multifunction Intake Air Sensor

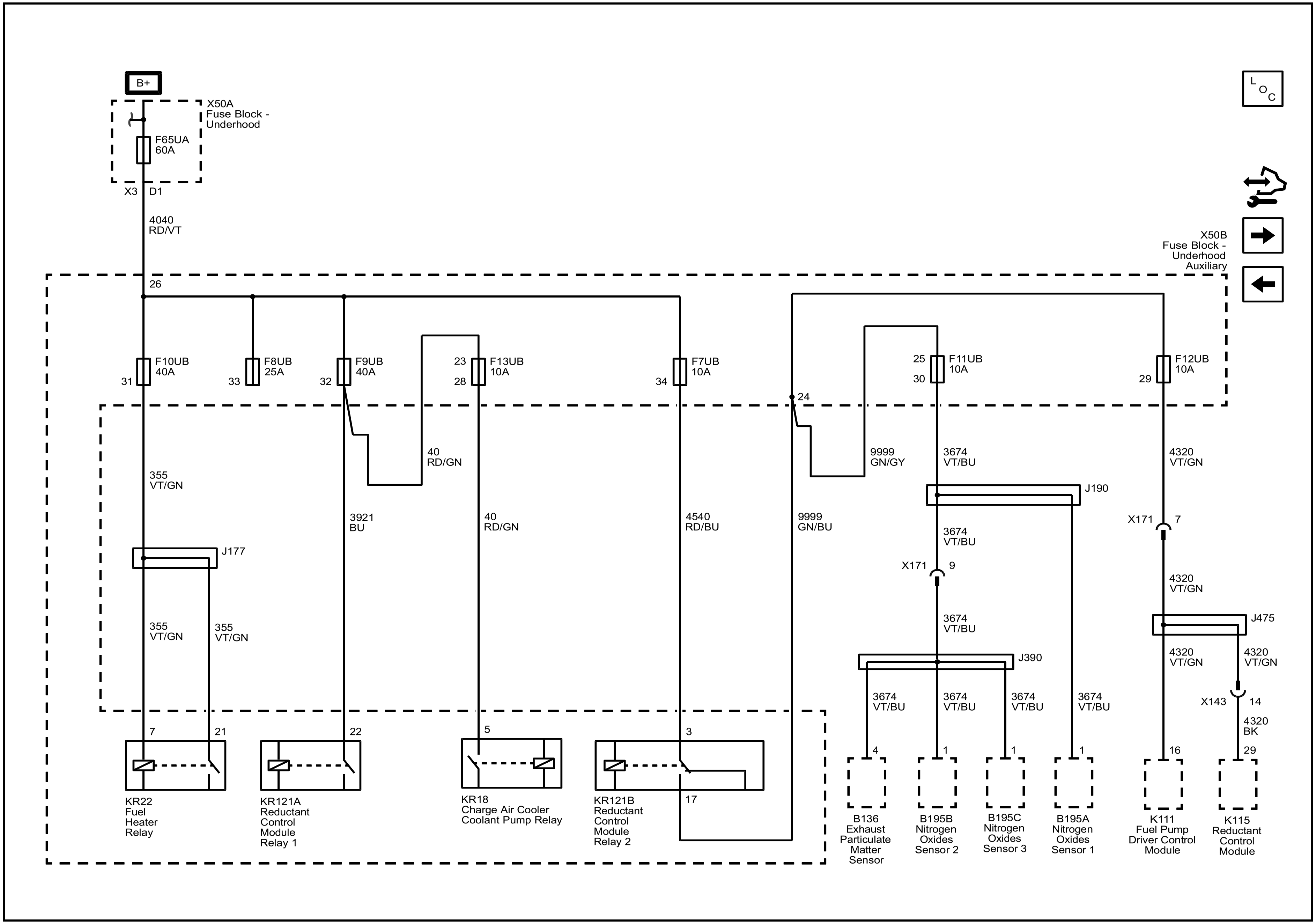
Power Distribution Schematics (F87UA, F90UA, and F91UA Fuses)


5256282
L O C
X50A Fuse Block - Underhood
KR75 Engine Controls Ignition Relay
C
F87UA 20A
F91UA 15A
F90UA 20A
X3 H2
X3 G2
X3 G3
X3 H6
X3 H5
X3 G6
X3 G5
L82/L84/L87/LV3
L3B
L82/L84/L87
LM2
L82/L84/L87/LV3
L82/L84/L87
LM2
L3B/LV3
L3B/L82/L84/L87/LV3
5292 VT/BU
5290 VT/BU
5291 VT/BU
J159
J161
LV3
L3B
-L3B
-L3B-LV3
4
T8G Ignition Coil 7
T8E Ignition Coil 5
T8D Ignition Coil 4
T8C Ignition Coil 3
T8B Ignition Coil 2
T8A Ignition Coil 1
T8H Ignition Coil 8
T8F Ignition Coil 6
T8D Ignition Coil 4
T8B Ignition Coil 2
K20 Engine Control Module
X1 16 (L3B)
X1 32 (LV3)
32
X1 46
X2 16
48
X1 90
44
73
X3 44

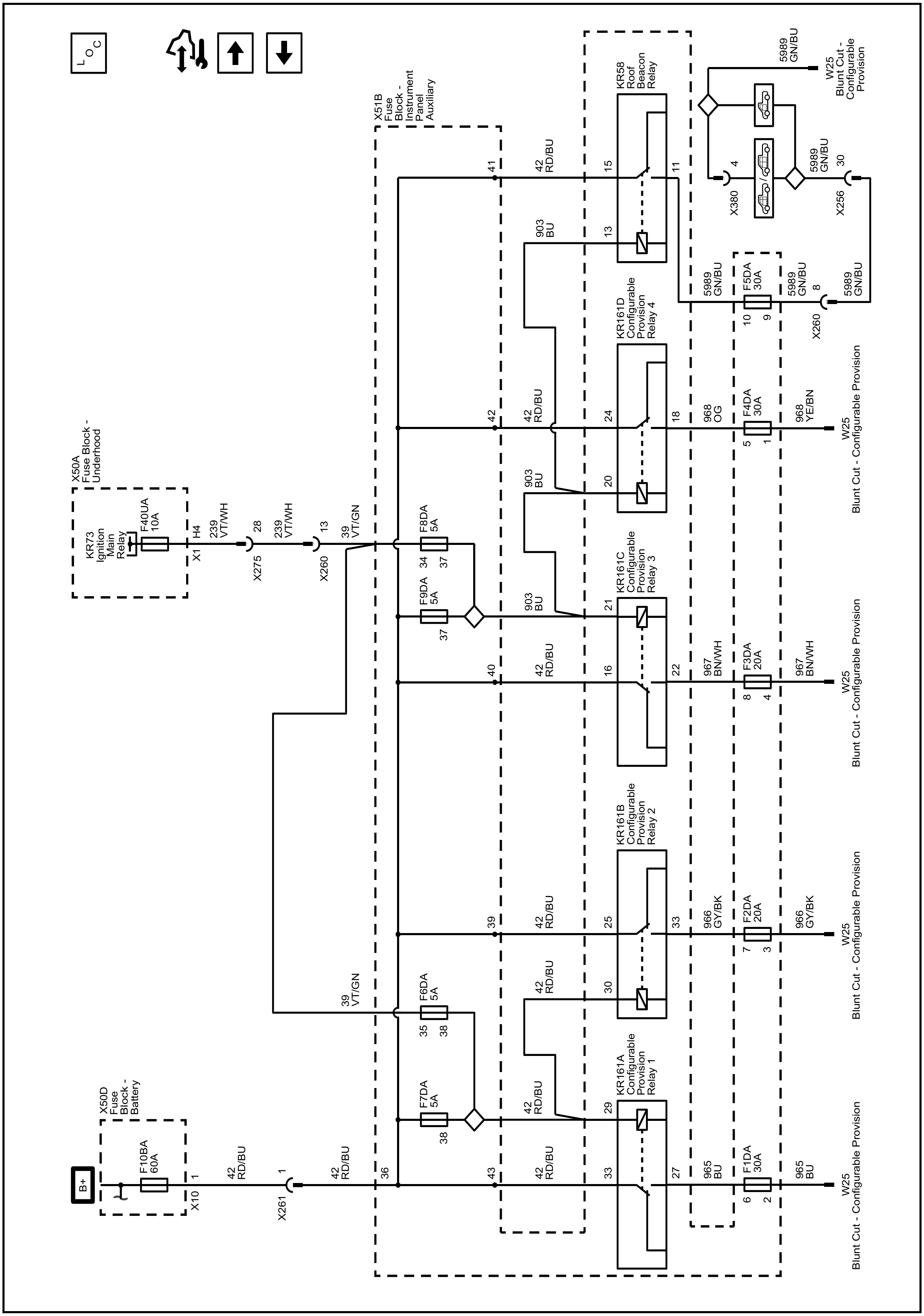
Power Distribution Schematics (F89UA and F92UA Fuses)


L O C
B+
B+ BUS
X50A Fuse Block - Underhood
1
5
KR75 Engine Controls Ignition Relay
3
B
KR75 BUS
F92UA 10A
F89UA 15A
X3
F7
G4
H4
5705 VT/BU
5293 VT/BU
L3B
X132
1
LM2
L82/L84/L87/LV3/L3B
J189
J162
-WMI
WMI
J103
3
Q97B Engine Coolant Flow Control Valve - Block
Q97 Engine Coolant Flow Control Valve
M96A Active Grille Air Shutter 1 Actuator
M96B Active Grille Air Shutter 2 Actuator
Q12 Evaporative Emission Purge Solenoid Valve
X154
7
X158
Q44 Engine Oil Pressure Control Solenoid Valve
L82/L84/L87/LV3
LV3
Q43 Valve Lifter Oil Manifold Assembly
G58 Evaporative Emission Purge Pump
6
B52A Heated Oxygen Sensor 1
B52C Heated Oxygen Sensor - Bank 1 Sensor 1
B52D Heated Oxygen Sensor - Bank 1 Sensor 2
B52E Heated Oxygen Sensor - Bank 2 Sensor 1
B52F Heated Oxygen Sensor - Bank 2 Sensor 2
5294 VT/BU
2
Q40 Turbocharger Bypass Solenoid Valve
M129A Intake Camshaft Profile Actuator 1
M129B Intake Camshaft Profile Actuator 2
M129C Intake Camshaft Profile Actuator 3
M129D Intake Camshaft Profile Actuator 4
M130B Exhaust Camshaft Profile Actuator 2
M130C Exhaust Camshaft Profile Actuator 3
5256285

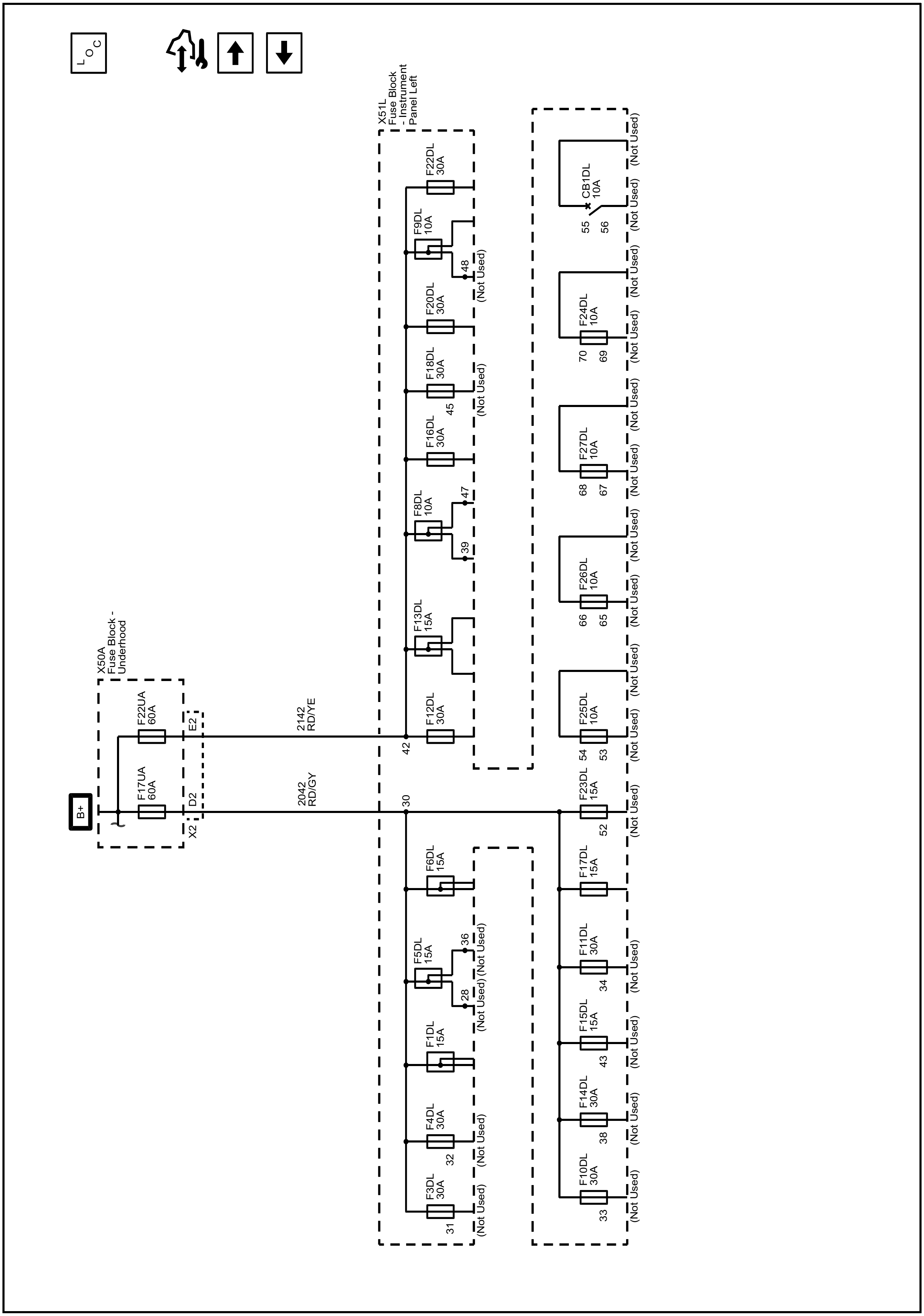
Power Distribution Schematics (Auxiliary Underhood Fuse Block (LM2))


B+
X50A
Fuse Block -
Underhood
F65UA
60A
X3
D1
4040
RD/VT
X50B
Fuse Block -
Underhood
Auxiliary
26
F10UB
40A
31
F8UB
25A
33
F9UB
40A
32
23
F13UB
10A
28
F7UB
10A
34
24
25
F11UB
10A
30
F12UB
10A
29
355
VT/GN
40
RD/GN
3921
BU
40
RD/GN
4540
RD/BU
9999
GN/BU
9999
GN/GY
3674
VT/BU
4320
VT/GN
J177
J190
J390
J475
X171
9
X171
7
X143
14
4320
BK
7
21
22
5
3
17
4
1
1
1
16
29
KR22
Fuel
Heater
Relay
KR121A
Reductant
Control
Module
Relay 1
KR18
Charge Air Cooler
Coolant Pump Relay
KR121B
Reductant
Control
Module
Relay 2
B136
Exhaust
Particulate
Matter
Sensor
B195B
Nitrogen
Oxides
Sensor 2
B195C
Nitrogen
Oxides
Sensor 3
B195A
Nitrogen
Oxides
Sensor 1
K111
Fuel Pump
Driver Control
Module
K115
Reductant
Control
Module
L
O
C
5256289

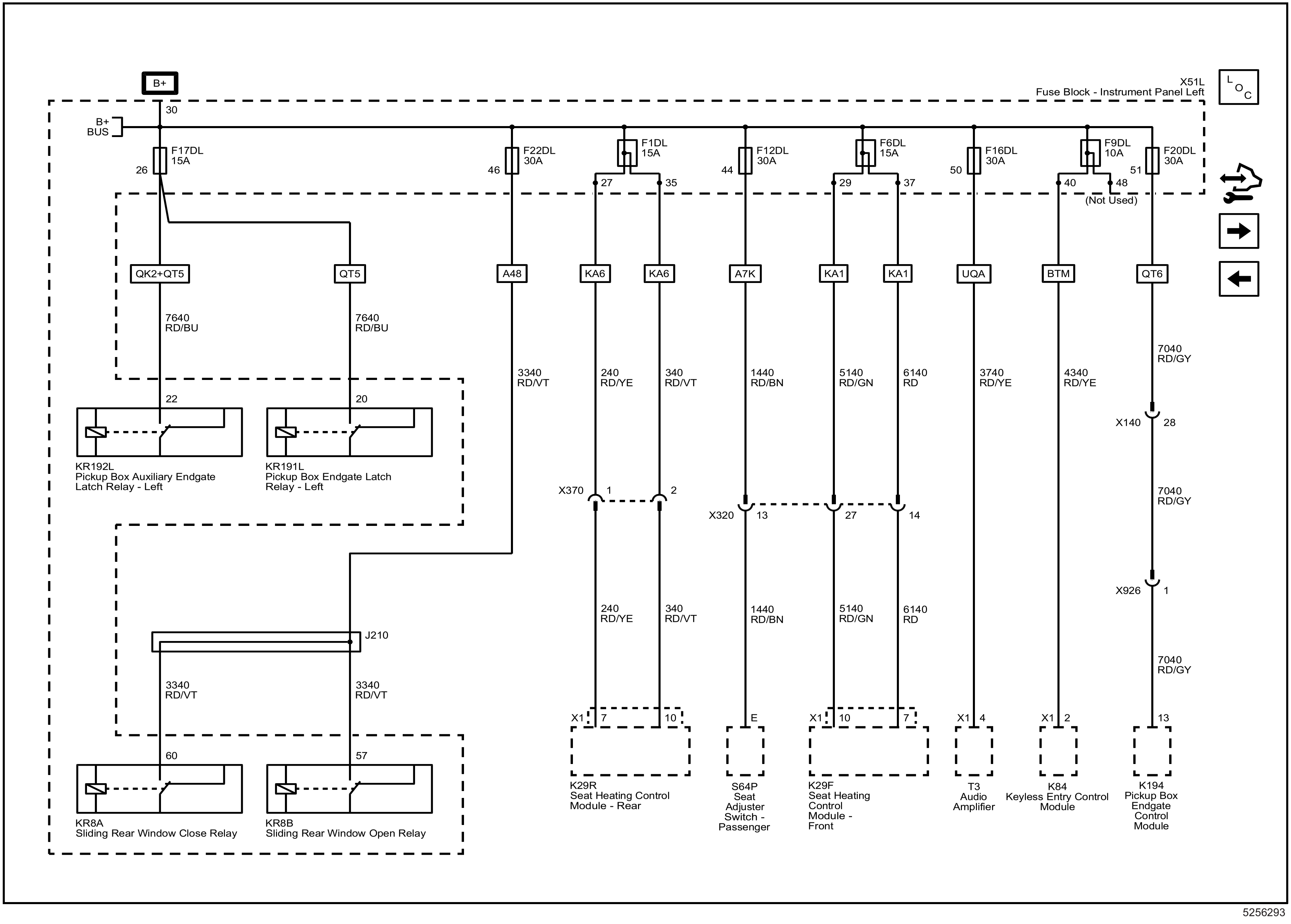
Power Distribution Schematics (Auxiliary Instrument Panel Fuse Block (9L7))


L O C
5256290
B+
X50D Fuse Block - Battery
F10BA 60A
X10 1
42 RD/BU
X261 1
X50A Fuse Block - Underhood
KR73 Ignition Main Relay
F40UA 10A
X1 H4
239 VT/WH
X275 28
239 VT/WH
X260 13
39 VT/GN
X51B Fuse Block - Instrument Panel Auxiliary
36
F7DA 5A
38
F6DA 5A
35 38
F9DA 5A
37
F8DA 5A
34 37
43
39
40
42
41
42 RD/BU
903 BU
KR161A Configurable Provision Relay 1
33 29 27
KR161B Configurable Provision Relay 2
30 25 33
KR161C Configurable Provision Relay 3
21 16 22
KR161D Configurable Provision Relay 4
20 24 18
KR58 Roof Beacon Relay
13 15 11
965 BU
F1DA 30A
6 2
966 GY/BK
F2DA 20A
7 3
967 BN/WH
F3DA 20A
8 4
968 OG
F4DA 30A
5 1
968 YE/BN
5989 GN/BU
F5DA 30A
10 9
X260 8
X256 30
X380 4
W25 Blunt Cut - Configurable Provision

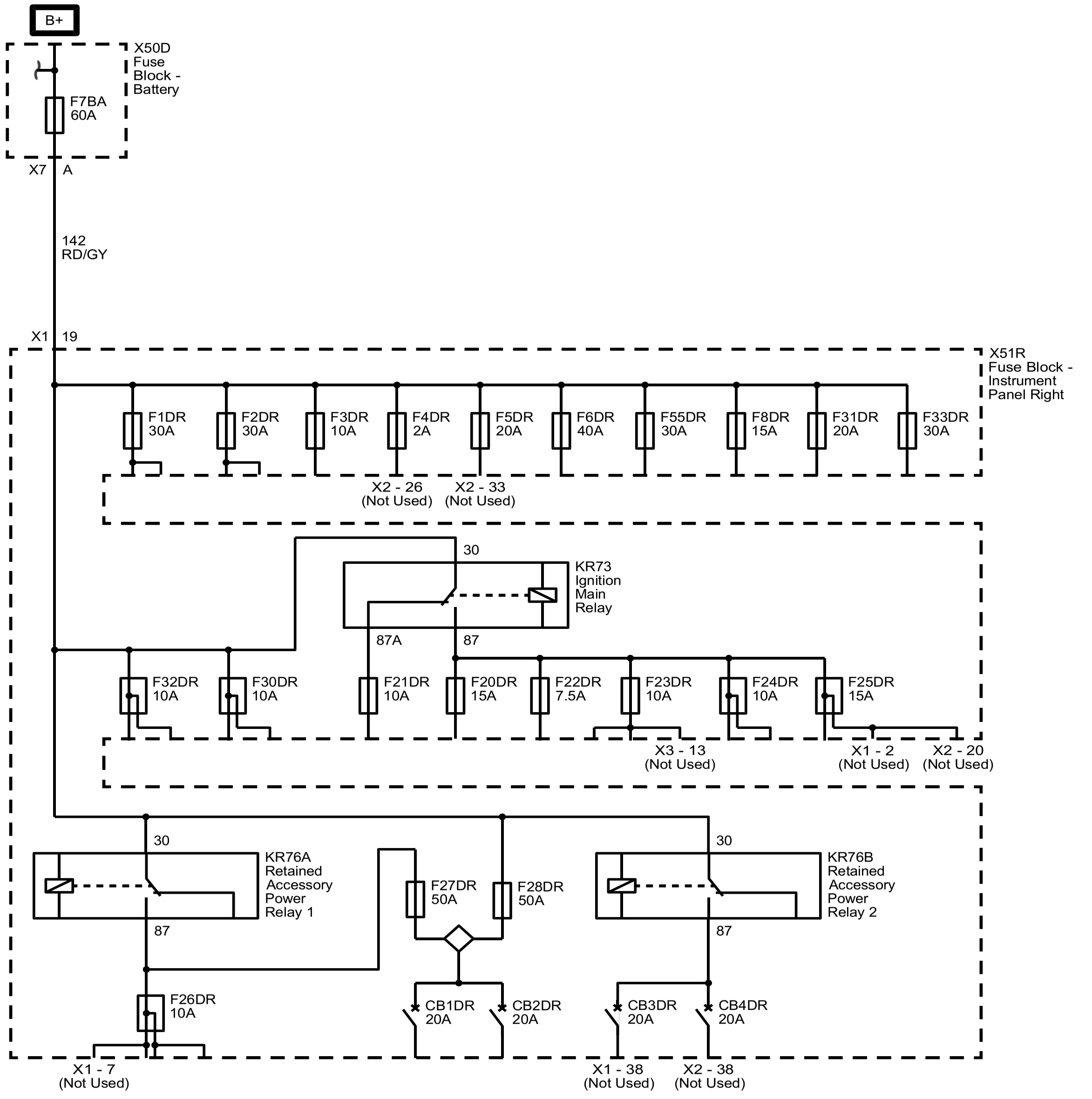
Power Distribution Schematics (Instrument Panel Fuse Block Bussing - Left)


5256292
L O C
B+
X50A Fuse Block - Underhood
F17UA 60A
F22UA 60A
E2
D2
X2
2142 RD/YE
2042 RD/GY
X51L Fuse Block - Instrument Panel Left
42
30
F12DL 30A
F13DL 15A
F8DL 10A
39
47
F16DL 30A
F18DL 30A
45
(Not Used)
F20DL 30A
F9DL 10A
48
(Not Used)
F22DL 30A
F6DL 15A
F5DL 15A
28
(Not Used)
36
(Not Used)
F1DL 15A
F4DL 30A
32
(Not Used)
F3DL 30A
31
(Not Used)
F23DL 15A
52
(Not Used)
F17DL 15A
F11DL 30A
34
(Not Used)
F15DL 15A
43
(Not Used)
F14DL 30A
38
(Not Used)
F10DL 30A
33
(Not Used)
F25DL 10A
54
53
(Not Used)
(Not Used)
F26DL 10A
66
65
(Not Used)
(Not Used)
F27DL 10A
68
67
(Not Used)
(Not Used)
F24DL 10A
70
69
(Not Used)
(Not Used)
CB1DL 10A
55
56
(Not Used)
(Not Used)

Power Distribution Schematics (F1DL, F8DL, F9DL, F12DL, F16DL, F17DL, F20DL, and F22DL Fuses)

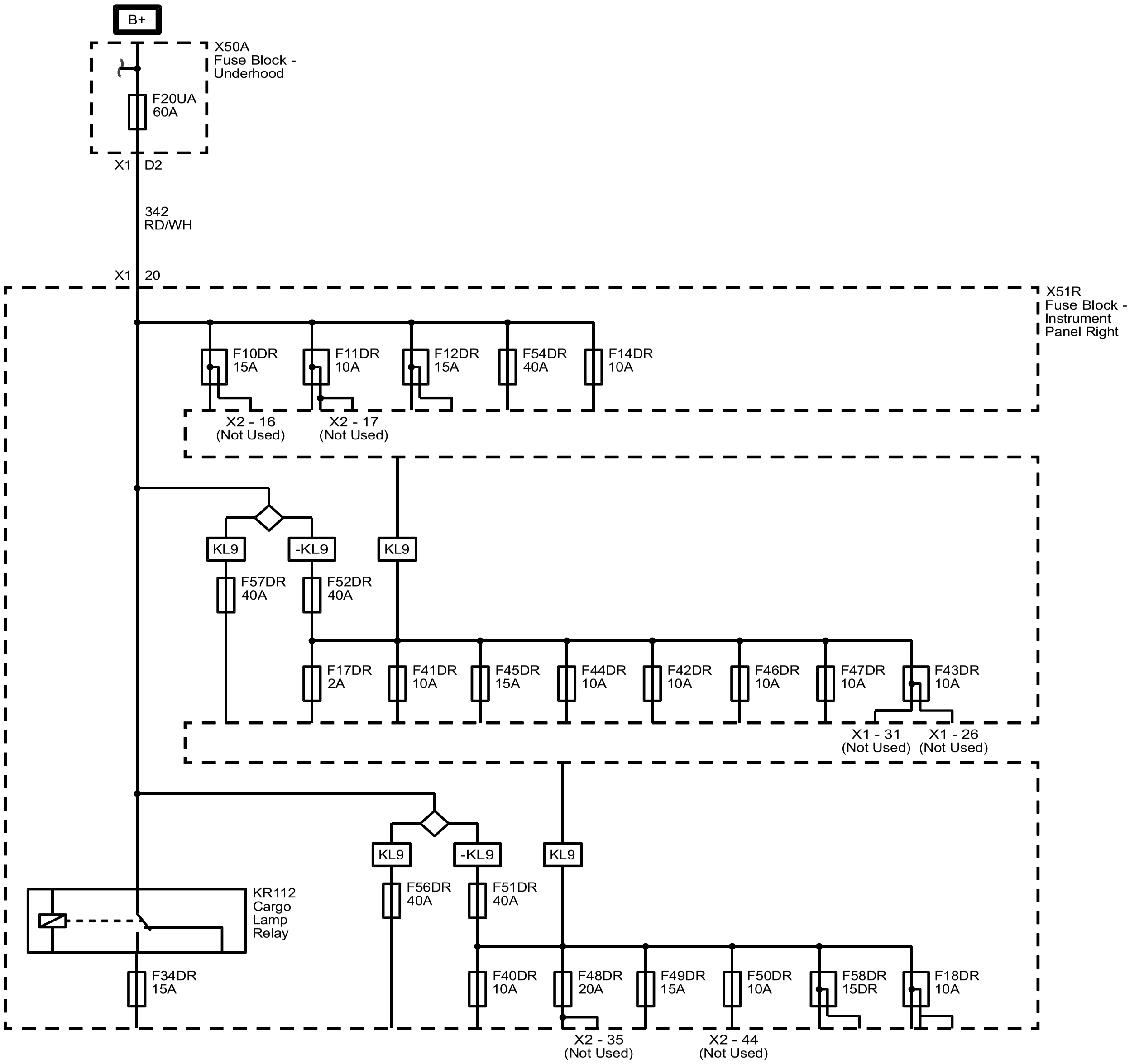

B+
30
B+ BUS
X51L
Fuse Block - Instrument Panel Left
F17DL 15A
26
F22DL 30A
46
F1DL 15A
27
35
F12DL 30A
44
F6DL 15A
29
37
F16DL 30A
50
F9DL 10A
40
48
(Not Used)
F20DL 30A
51
QK2+QT5
QT5
A48
KA6
KA6
A7K
KA1
KA1
UQA
BTM
QT6
7640 RD/BU
7640 RD/BU
3340 RD/VT
240 RD/YE
340 RD/VT
1440 RD/BN
5140 RD/GN
6140 RD
3740 RD/YE
4340 RD/YE
7040 RD/GY
22
20
KR192L
Pickup Box Auxiliary Endgate Latch Relay - Left
KR191L
Pickup Box Endgate Latch Relay - Left
X140
28
X370
1
2
X320
13
27
14
7040 RD/GY
X926
1
J210
240 RD/YE
340 RD/VT
1440 RD/BN
5140 RD/GN
6140 RD
7040 RD/GY
3340 RD/VT
3340 RD/VT
X1
7
10
E
X1
10
7
X1
4
X1
2
13
60
57
K29R
Seat Heating Control Module - Rear
S64P
Seat Adjuster Switch - Passenger
K29F
Seat Heating Control Module - Front
T3
Audio Amplifier
K84
Keyless Entry Control Module
K194
Pickup Box Endgate Control Module
KR8A
Sliding Rear Window Close Relay
KR8B
Sliding Rear Window Open Relay
LOC
5256293

Power Distribution Schematics (Instrument Panel Fuse Block Bussing - Right (1 of 2))


B+
X50D
Fuse
Block -
Battery
F7BA
60A
X7
A
142
RD/GY
X1
19
X51R
Fuse Block -
Instrument
Panel Right
F1DR
30A
F2DR
30A
F3DR
10A
F4DR
2A
F5DR
20A
F6DR
40A
F55DR
30A
F8DR
15A
F31DR
20A
F33DR
30A
X2 - 26
(Not Used)
X2 - 33
(Not Used)
30
KR73
Ignition
Main
Relay
87A
87
F32DR
10A
F30DR
10A
F21DR
10A
F20DR
15A
F22DR
7.5A
F23DR
10A
F24DR
10A
F25DR
15A
X3 - 13
(Not Used)
X1 - 2
(Not Used)
X2 - 20
(Not Used)
30
KR76A
Retained
Accessory
Power
Relay 1
87
F27DR
50A
F28DR
50A
30
KR76B
Retained
Accessory
Power
Relay 2
87
F26DR
10A
CB1DR
20A
CB2DR
20A
CB3DR
20A
CB4DR
20A
X1 - 7
(Not Used)
X1 - 38
(Not Used)
X2 - 38
(Not Used)

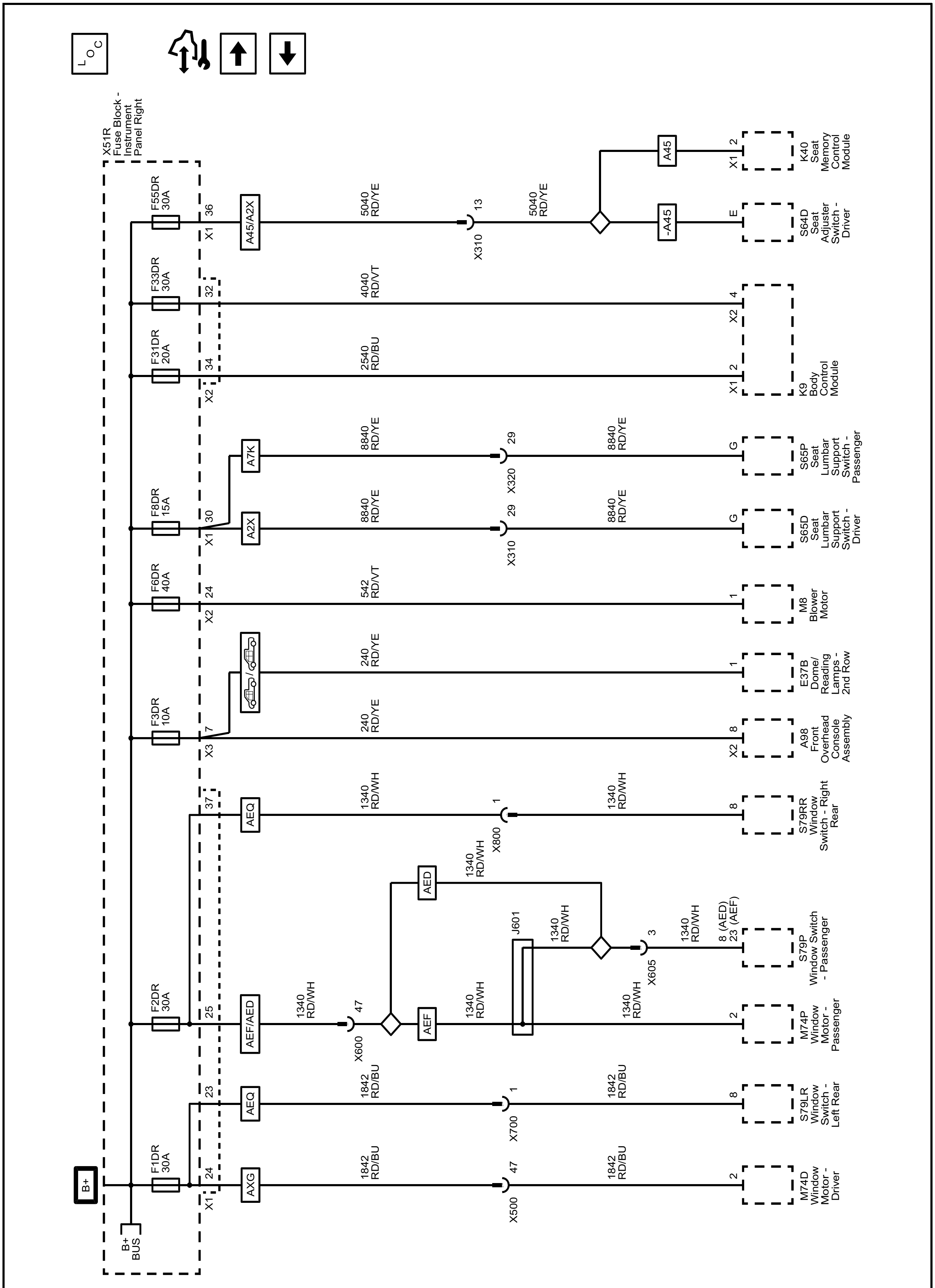
5256295

Power Distribution Schematics (Instrument Panel Fuse Block Bussing - Right (2 of 2))

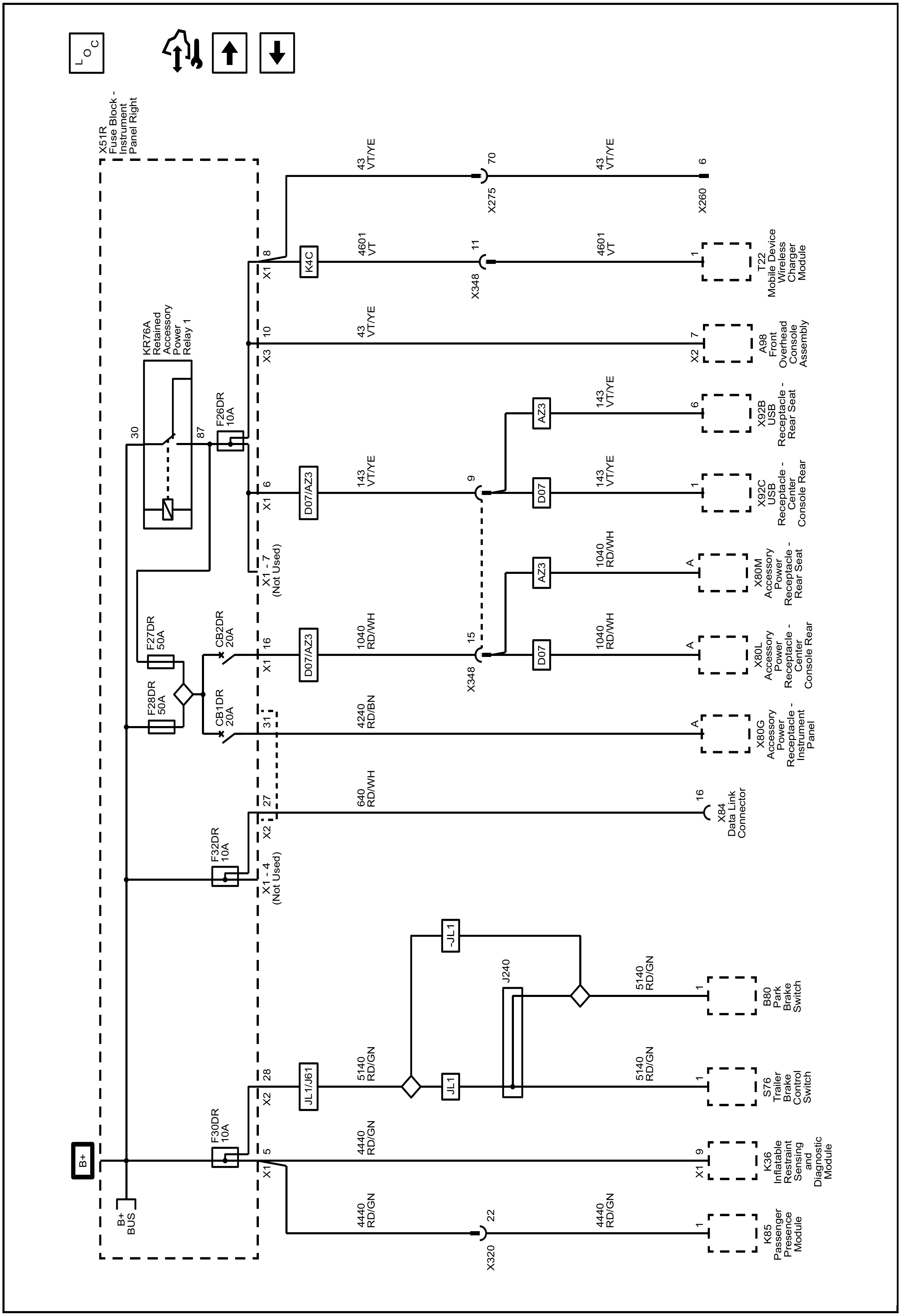

B+
X50A
Fuse Block -
Underhood
F20UA
60A
X1
D2
342
RD/WH
X1
20
X51R
Fuse Block -
Instrument
Panel Right
F10DR
15A
F11DR
10A
F12DR
15A
F54DR
40A
F14DR
10A
X2 - 16
(Not Used)
X2 - 17
(Not Used)
KL9
-KL9
KL9
F57DR
40A
F52DR
40A
F17DR
2A
F41DR
10A
F45DR
15A
F44DR
10A
F42DR
10A
F46DR
10A
F47DR
10A
F43DR
10A
X1 - 31
(Not Used)
X1 - 26
(Not Used)
KL9
-KL9
KL9
KR112
Cargo
Lamp
Relay
F56DR
40A
F51DR
40A
F34DR
15A
F40DR
10A
F48DR
20A
F49DR
15A
F50DR
10A
F58DR
15DR
F18DR
10A
X2 - 35
(Not Used)
X2 - 44
(Not Used)

5256297

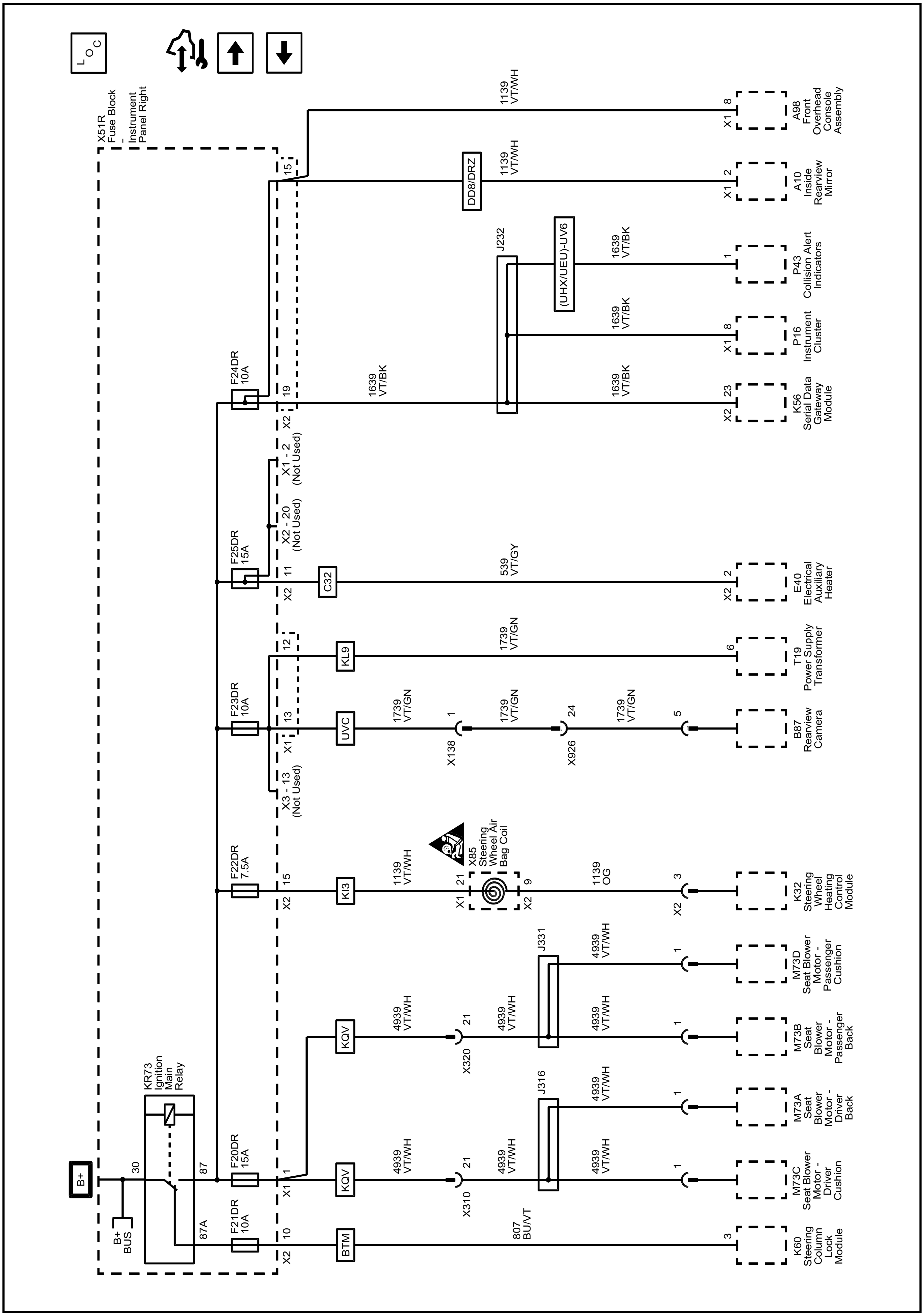
Power Distribution Schematics (F1DR, F2DR, F3DR, F6DR, F8DR, F31DR, F33DR, and F55DR Fuses)


5256298
LOC
B+
B+ BUS
X51R Fuse Block - Instrument Panel Right
F1DR 30A
F2DR 30A
F3DR 10A
F6DR 40A
F8DR 15A
F31DR 20A
F33DR 30A
F55DR 30A
X1 24
23
25
37
X3 7
X2 24
X1 30
X2 34
32
X1 36
AXG
AEQ
AEF/AED
AEQ
A2X
A7K
A45/A2X
1842 RD/BU
1340 RD/WH
240 RD/YE
542 RD/VT
8840 RD/YE
2540 RD/BU
4040 RD/VT
5040 RD/YE
X500 47
X700 1
X600 47
X800 1
X310 29
X320 29
X310 13
X605 3
AEF
AED
J601
A45
-A45
2
8
8 (AED) 23 (AEF)
1
G
X1 2
X2 4
E
M74D Window Motor - Driver
S79LR Window Switch - Left Rear
M74P Window Motor - Passenger
S79P Window Switch - Passenger
S79RR Window Switch - Right Rear
A98 Front Overhead Console Assembly
E37B Dome/ Reading Lamps - 2nd Row
M8 Blower Motor
S65D Seat Lumbar Support Switch - Driver
S65P Seat Lumbar Support Switch - Passenger
K9 Body Control Module
S64D Seat Adjuster Switch - Driver
K40 Seat Memory Control Module

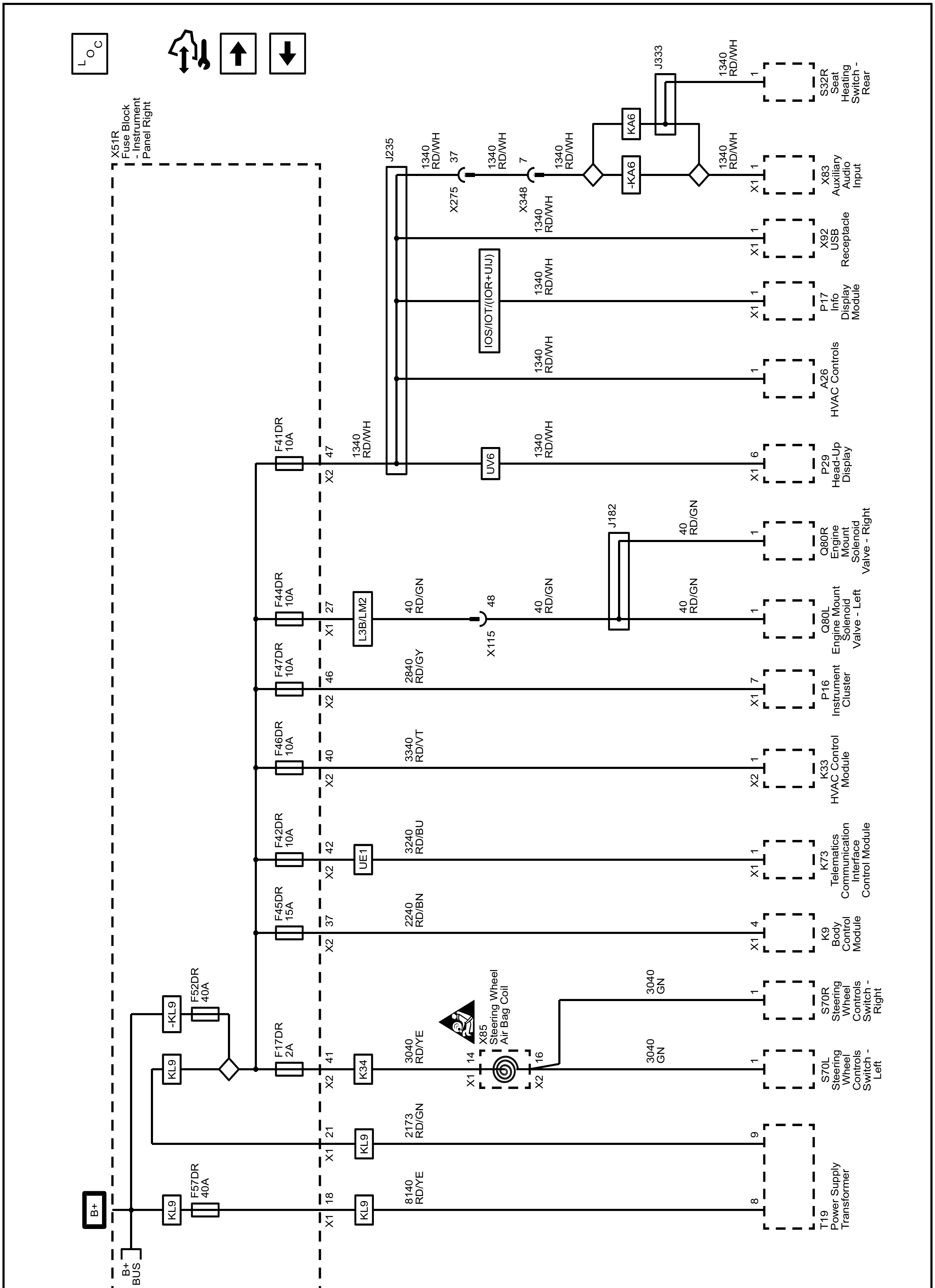
Power Distribution Schematics (CB1DR and CB2DR Circuit Breakers, F26DR, F27DR, F28DR, 30DR. and F32DR Fuses)


5256300
X51R Fuse Block - Instrument Panel Right
B+
B+ BUS
KR76A Retained Accessory Power Relay 1
30
87
F26DR 10A
F27DR 50A
F28DR 50A
CB2DR 20A
CB1DR 20A
F32DR 10A
F30DR 10A
X1 8
K4C
4601 VT
X348 11
4601 VT
1
T22 Mobile Device Wireless Charger Module
43 VT/YE
X275 70
43 VT/YE
X260 6
X3 10
43 VT/YE
X2 7
A98 Front Overhead Console Assembly
X1 6
D07/AZ3
143 VT/YE
9
AZ3
143 VT/YE
6
X92B USB Receptacle - Rear Seat
D07
143 VT/YE
1
X92C USB Receptacle - Center Console Rear
X1 - 7 (Not Used)
AZ3
1040 RD/WH
A
X80M Accessory Power Receptacle - Rear Seat
X1 16
D07/AZ3
1040 RD/WH
X348 15
D07
1040 RD/WH
A
X80L Accessory Power Receptacle - Center Console Rear
31
4240 RD/BN
A
X80G Accessory Power Receptacle - Instrument Panel
X2 27
640 RD/WH
16
X84 Data Link Connector
X1 - 4 (Not Used)
X2 28
JL1/J61
5140 RD/GN
~JL1
JL1
J240
5140 RD/GN
1
B80 Park Brake Switch
5140 RD/GN
1
S76 Trailer Brake Control Switch
X1 5
4440 RD/GN
X1 9
K36 Inflatable Restraint Sensing and Diagnostic Module
4440 RD/GN
X320 22
4440 RD/GN
1
K85 Passenger Presence Module
L O C

Power Distribution Schematics (F20DR, F21DR, F22DR, F23DR, F24DR, and F25DR Fuses)

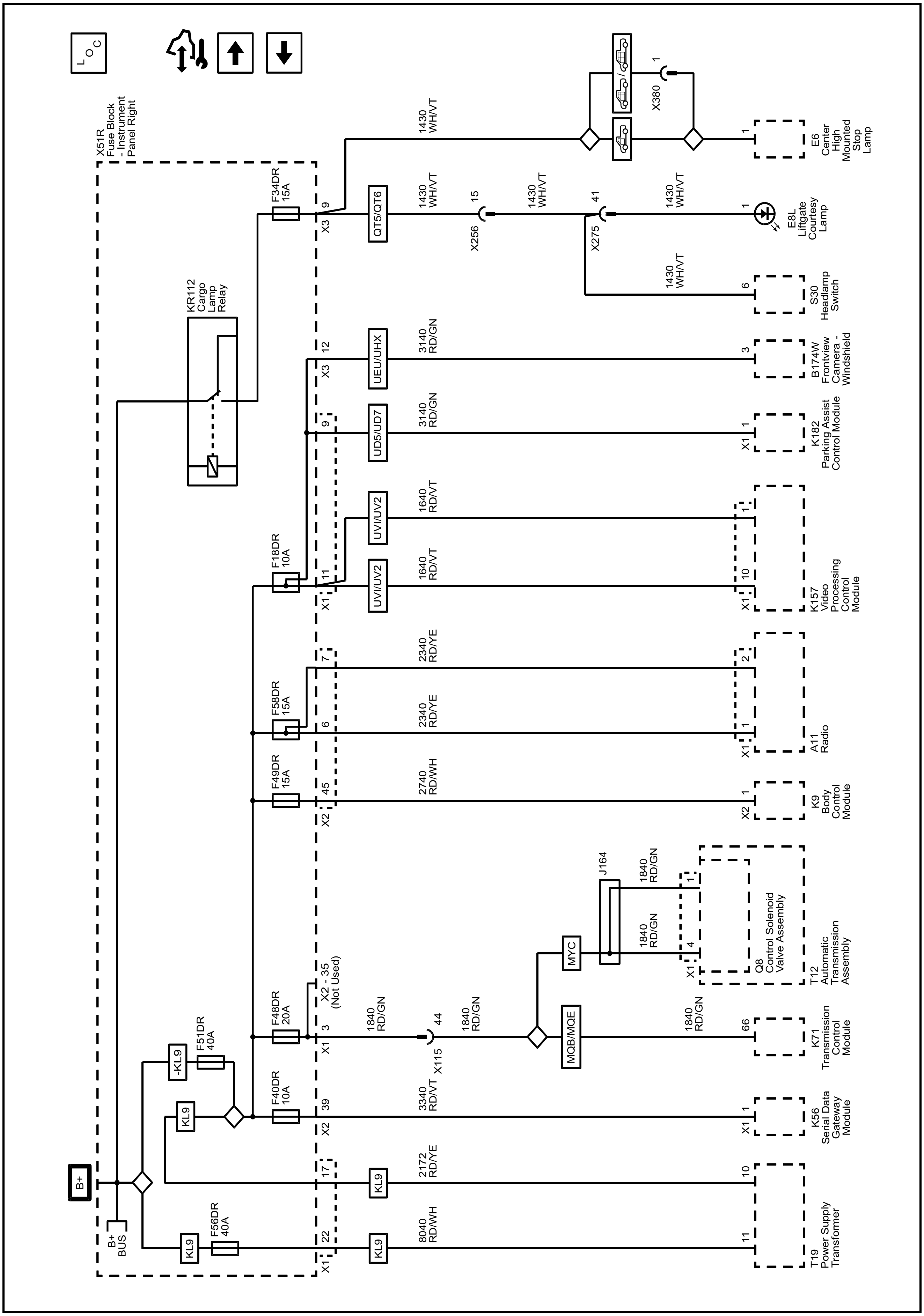

5256302
L O C
X51R Fuse Block - Instrument Panel Right
B+
B+ BUS
30
87
87A
KR73 Ignition Main Relay
F20DR 15A
F21DR 10A
F22DR 7.5A
F23DR 10A
F25DR 15A
F24DR 10A
X1 1
X2 10
X2 15
X3 - 13 (Not Used)
X1 13
12
X2 11
X2 - 20 (Not Used)
X1 - 2 (Not Used)
X2 19
15
BTM
KQV
KQV
KI3
UVC
KL9
C32
DD8/DRZ
807 BU/VT
4939 VT/WH
X310
21
X320
J316
J331
1139 VT/WH
X1 21
X85 Steering Wheel Air Bag Coil
X2 9
1139 OG
X2 3
1739 VT/GN
X138
1
X926
24
5
6
539 VT/GY
1639 VT/BK
J232
(UHX/UEU)-UV6
1139 VT/WH
3
K60 Steering Column Lock Module
M73C Seat Blower Motor - Driver Cushion
M73A Seat Blower Motor - Driver Back
M73B Seat Blower Motor - Passenger Back
M73D Seat Blower Motor - Passenger Cushion
K32 Steering Wheel Heating Control Module
B87 Rearview Camera
T19 Power Supply Transformer
X2 2
E40 Electrical Auxiliary Heater
X2 23
K56 Serial Data Gateway Module
X1 8
P16 Instrument Cluster
P43 Collision Alert Indicators
X1 2
A10 Inside Rearview Mirror
X1 8
A98 Front Overhead Console Assembly

Power Distribution Schematics (F17DR, F41DR, F42DR, F44DR, F45DR, F46DR, F47DR, F52DR, and F57DR Fuses)

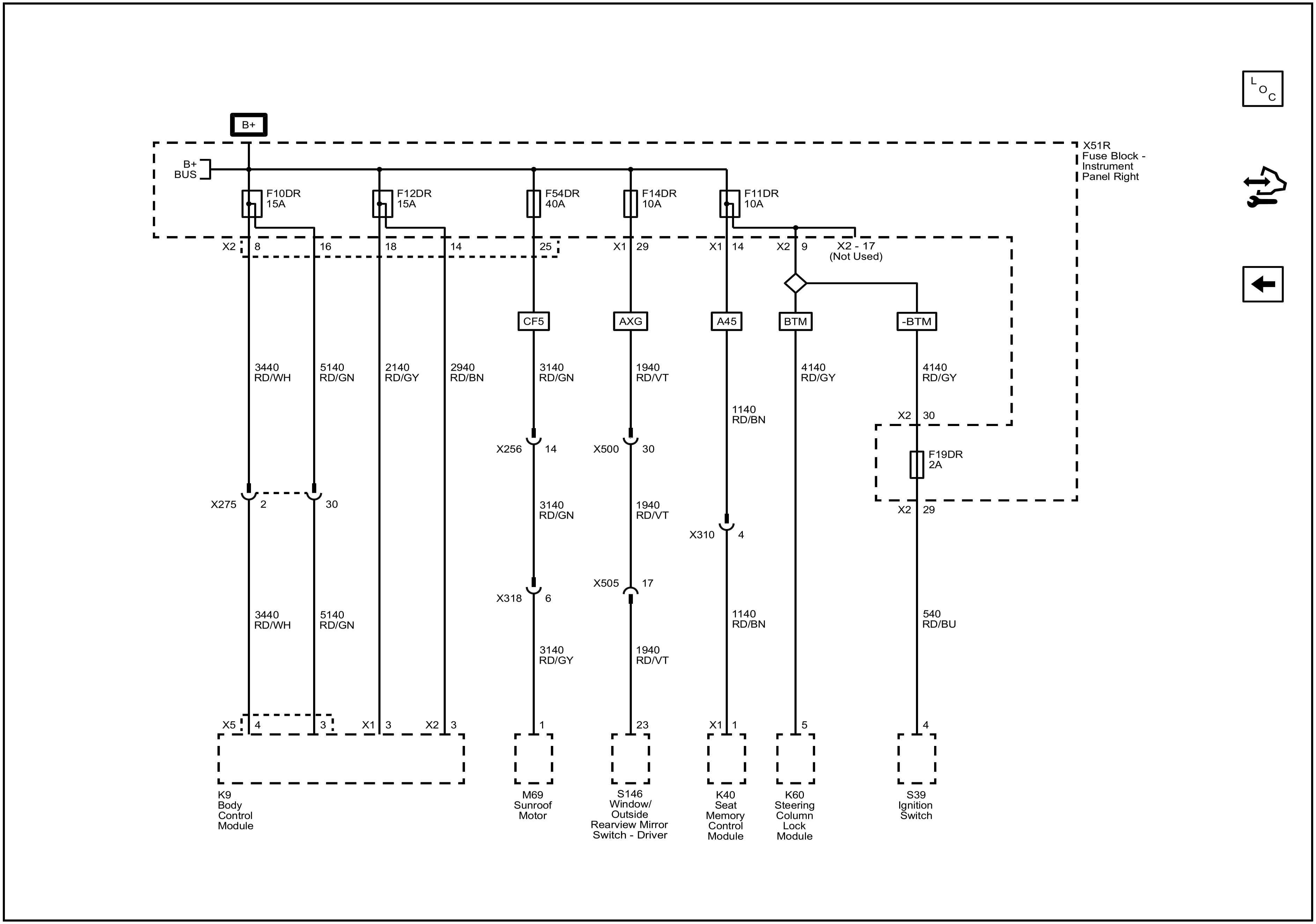


L O C
X51R Fuse Block - Instrument Panel Right
B+
B+ BUS
KL9
F57DR 40A
KL9
-KL9
F52DR 40A
F17DR 2A
F45DR 15A
F42DR 10A
F46DR 10A
F47DR 10A
F44DR 10A
F41DR 10A
X1 18
X1 21
X2 41
X2 37
X2 42
X2 40
X2 46
X1 27
X2 47
KL9
KL9
K34
UE1
L3B/LM2
8140 RD/YE
2173 RD/GN
3040 RD/YE
2240 RD/BN
3240 RD/BU
3340 RD/VT
2840 RD/GY
40 RD/GN
1340 RD/WH
X85 Steering Wheel Air Bag Coil
X1 14
X2 16
3040 GN
3040 GN
X115
48
40 RD/GN
J182
40 RD/GN
40 RD/GN
J235
UV6
1340 RD/WH
1340 RD/WH
1340 RD/WH
IOS/IOT/(IOR+UIJ)
1340 RD/WH
1340 RD/WH
37
X275
1340 RD/WH
7
X348
1340 RD/WH
-KA6
KA6
J333
1340 RD/WH
1340 RD/WH
8
9
T19 Power Supply Transformer
1
S70L Steering Wheel Controls Switch - Left
1
S70R Steering Wheel Controls Switch - Right
X1 4
K9 Body Control Module
X1 1
K73 Telematics Communication Interface Control Module
X2 1
K33 HVAC Control Module
X1 7
P16 Instrument Cluster
1
Q80L Engine Mount Solenoid Valve - Left
1
Q80R Engine Mount Solenoid Valve - Right
X1 6
P29 Head-Up Display
1
A26 HVAC Controls
X1 1
P17 Info Display Module
X1 1
X92 USB Receptacle
X1 1
X83 Auxiliary Audio Input
1
S32R Seat Heating Switch - Rear
5256303

Power Distribution Schematics (F18DR, F34DR, F40DR, F48DR, F49DR, F51DR, F56DR, and F58DR Fuses)

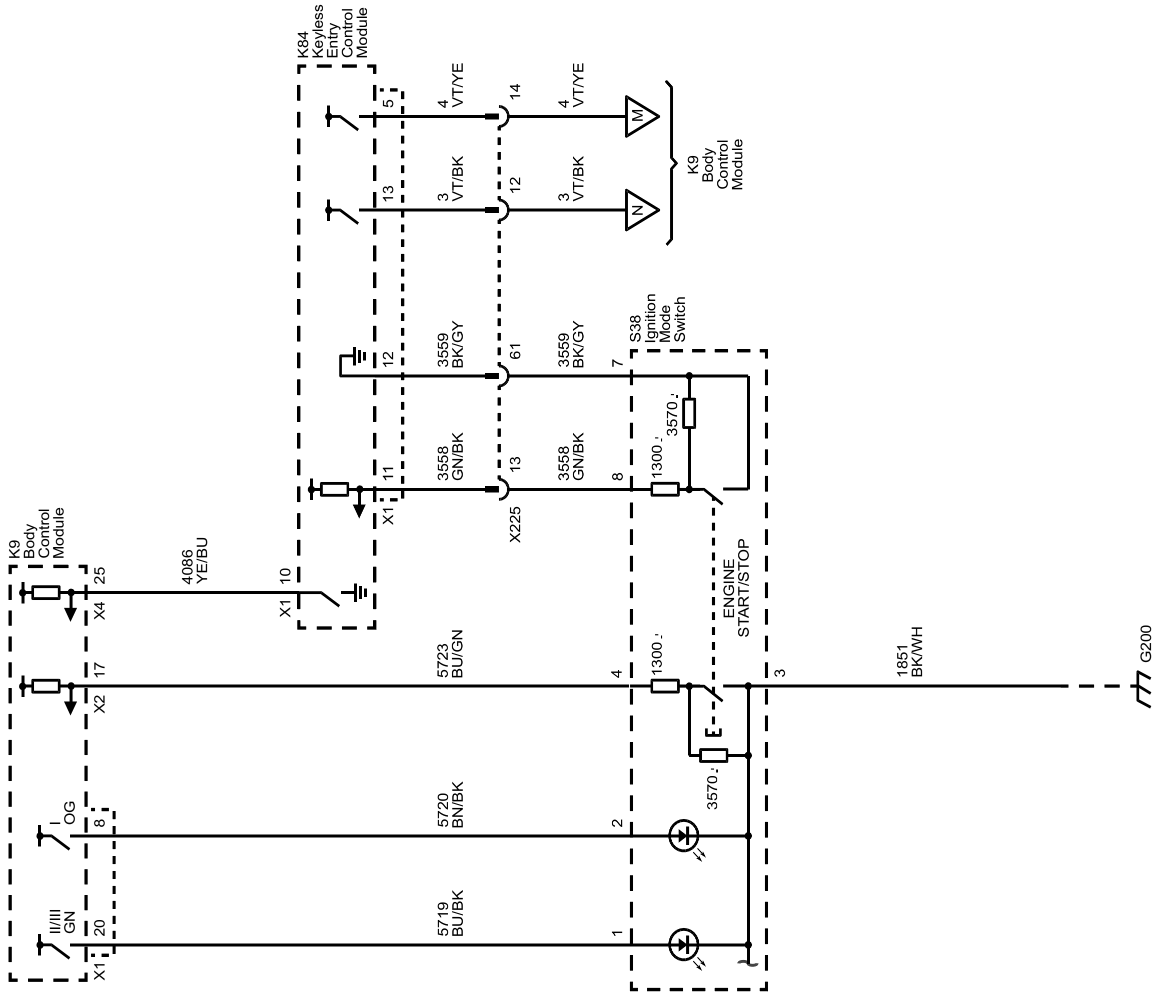

5256307
B+
B+ BUS
X51R Fuse Block - Instrument Panel Right
KL9
F56DR 40A
KL9
-KL9
F51DR 40A
F40DR 10A
F48DR 20A
F49DR 15A
F58DR 15A
F18DR 10A
KR112 Cargo Lamp Relay
F34DR 15A
X1 22
17
X2 39
X1 3
X2 - 35 (Not Used)
X2 45
6
7
X1 11
9
X3 12
X3 9
KL9
KL9
MQB/MQE
MYC
J164
UVI/UV2
UVI/UV2
UD5/UD7
UEU/UHX
QT5/QT6
8040 RD/WH
2172 RD/YE
3340 RD/VT
1840 RD/GN
X115
44
1840 RD/GN
1840 RD/GN
1840 RD/GN
1840 RD/GN
2740 RD/WH
2340 RD/YE
2340 RD/YE
1640 RD/VT
1640 RD/VT
3140 RD/GN
3140 RD/GN
1430 WH/VT
X256
15
1430 WH/VT
X275
41
1430 WH/VT
1430 WH/VT
1430 WH/VT
X380
1
11
10
T19 Power Supply Transformer
X1 1
K56 Serial Data Gateway Module
66
K71 Transmission Control Module
X1 4
1
Q8 Control Solenoid Valve Assembly
T12 Automatic Transmission Assembly
X2 1
K9 Body Control Module
X1 1
2
A11 Radio
X1 10
1
K157 Video Processing Control Module
X1 1
K182 Parking Assist Control Module
3
B174W Frontview Camera - Windshield
6
S30 Headlamp Switch
1
E8L Liftgate Courtesy Lamp
1
E6 Center High Mounted Stop Lamp

Power Distribution Schematics (F10DR, F11DR, F12DR, F14DR, F19DR, and F54DR Fuses)

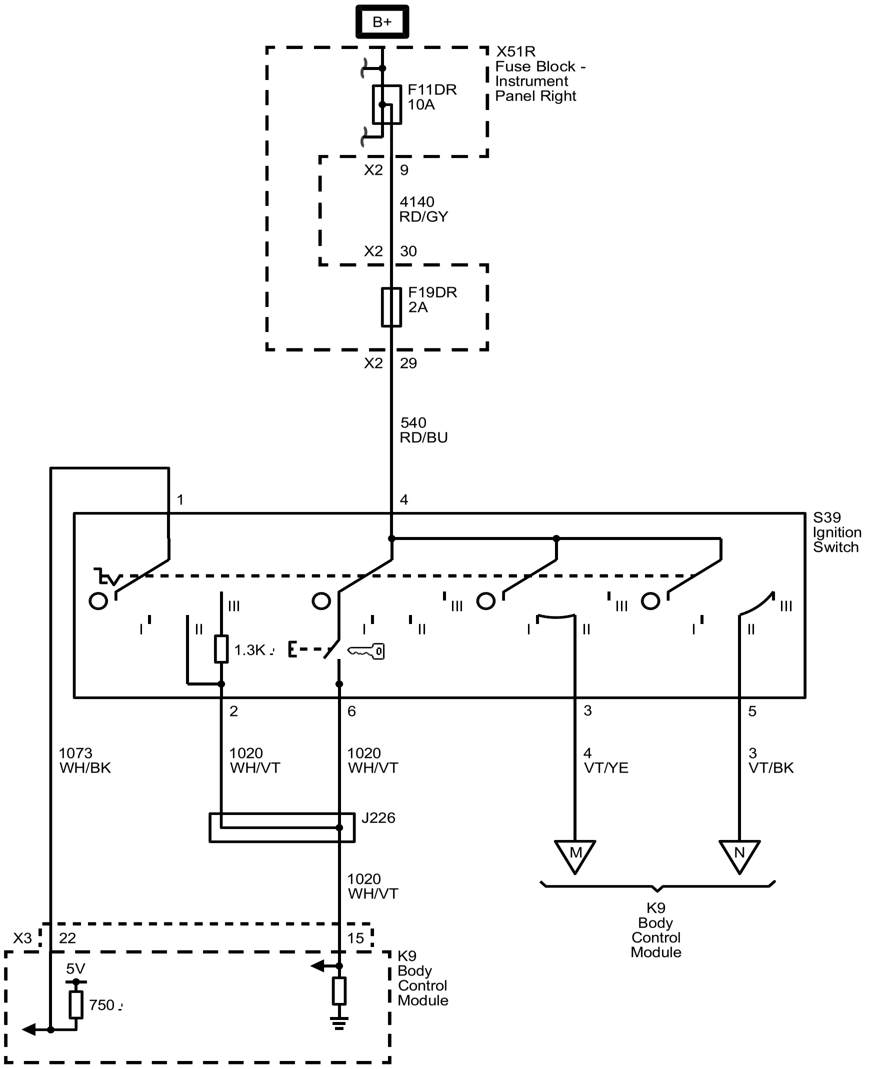

B+
B+ BUS
X51R Fuse Block - Instrument Panel Right
F10DR 15A
F12DR 15A
F54DR 40A
F14DR 10A
F11DR 10A
X2 8
16
18
14
25
X1 29
X1 14
X2 9
X2 - 17 (Not Used)
CF5
AXG
A45
BTM
-BTM
3440 RD/WH
5140 RD/GN
2140 RD/GY
2940 RD/BN
3140 RD/GN
1940 RD/VT
1140 RD/BN
4140 RD/GY
4140 RD/GY
X2 30
F19DR 2A
X2 29
X256 14
X500 30
X275 2
30
3140 RD/GN
1940 RD/VT
X310 4
X318 6
X505 17
3440 RD/WH
5140 RD/GN
1140 RD/BN
540 RD/BU
3140 RD/GY
1940 RD/VT
X5 4
3
X1 3
X2 3
1
23
X1 1
5
4
K9 Body Control Module
M69 Sunroof Motor
S146 Window/ Outside Rearview Mirror Switch - Driver
K40 Seat Memory Control Module
K60 Steering Column Lock Module
S39 Ignition Switch
5256309

5256310

Power Moding Schematics (Ignition Mode Switch (BTM))

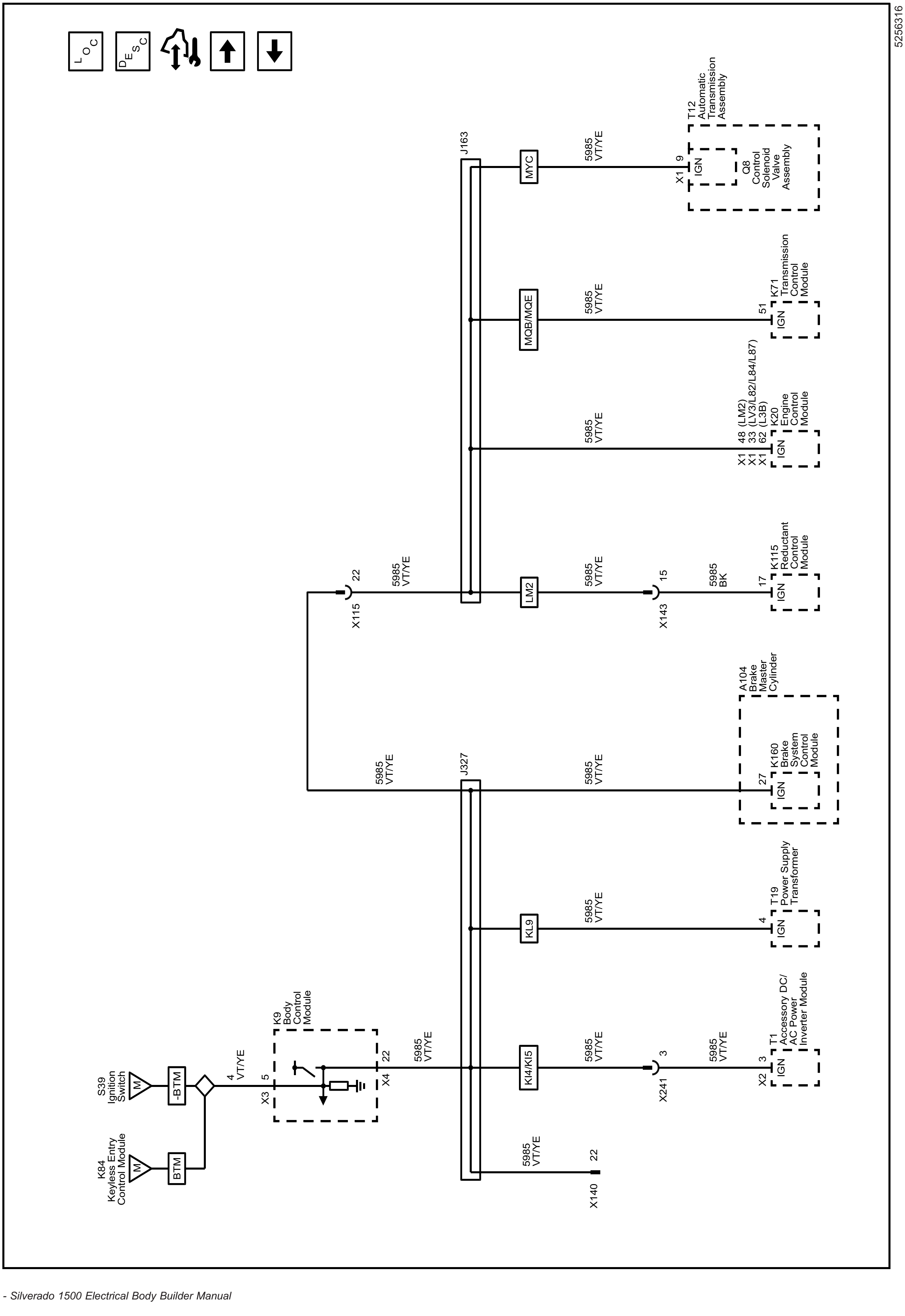

K84
Keyless
Entry
Control
Module
5
13
12
11
X1
10
X1
4
VT/YE
3
VT/BK
3559
BK/GY
3558
GN/BK
14
12
61
13
X225
4
VT/YE
3
VT/BK
3559
BK/GY
3558
GN/BK
M
N
K9
Body
Control
Module
S38
Ignition
Mode
Switch
7
8
1300 Ω
3570 Ω
ENGINE
START/STOP
K9
Body
Control
Module
25
X4
17
X2
I
OG
8
II/III
GN
20
X1
4086
YE/BU
5723
BU/GN
5720
BN/BK
5719
BU/BK
4
2
1
1300 Ω
3570 Ω
3
1851
BK/WH
G200

Power Moding Schematics (Ignition Switch (without BTM))

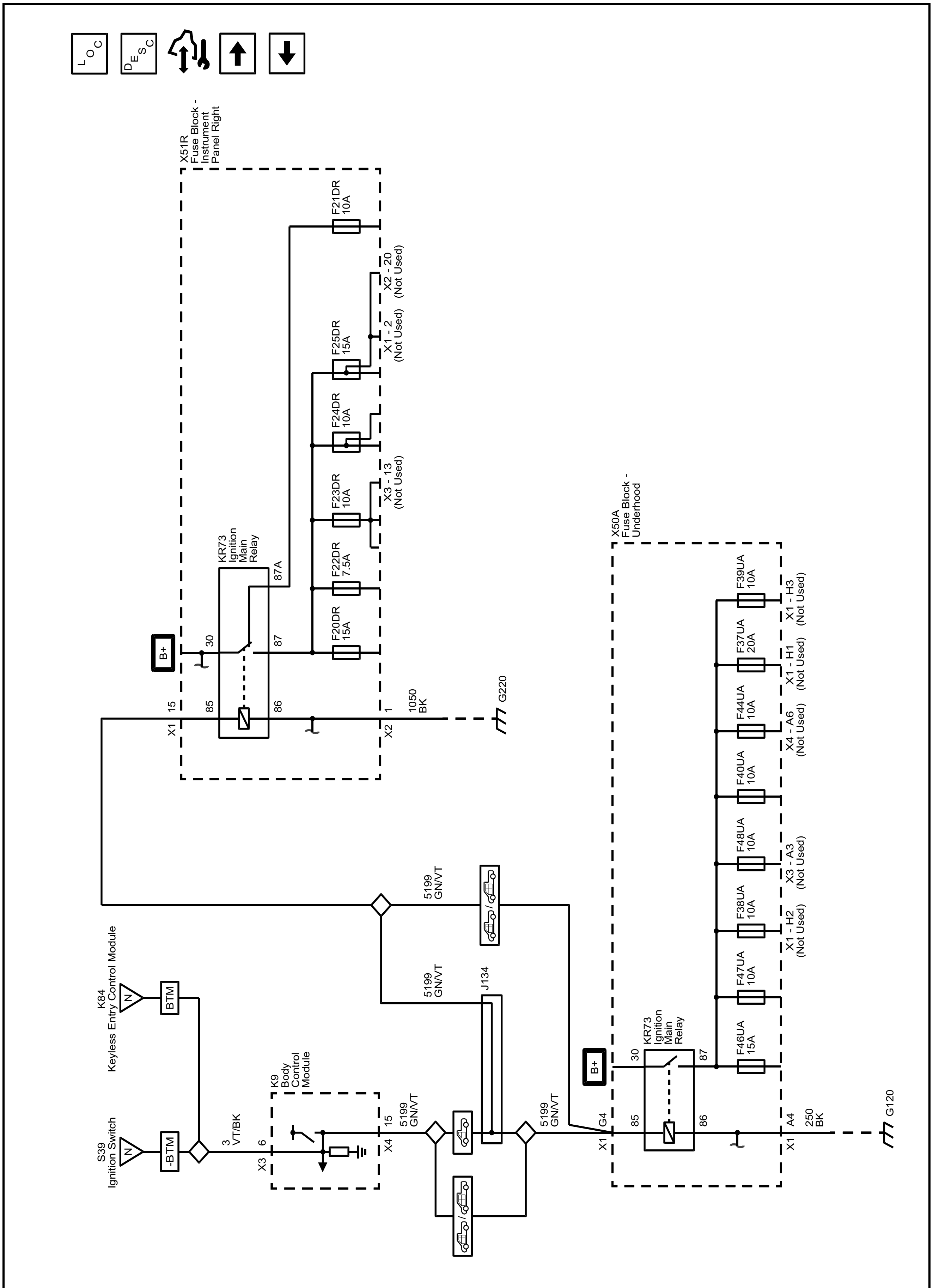

B+
X51R
Fuse Block -
Instrument
Panel Right
F11DR
10A
X2 9
4140
RD/GY
X2 30
F19DR
2A
X2 29
540
RD/BU
1
4
S39
Ignition
Switch
I
II
III
1.3K Ω
2
6
3
5
1073
WH/BK
1020
WH/VT
1020
WH/VT
4
VT/YE
3
VT/BK
J226
1020
WH/VT
M
N
K9
Body
Control
Module
X3 22
15
5V
750 Ω
K9
Body
Control
Module

5256312

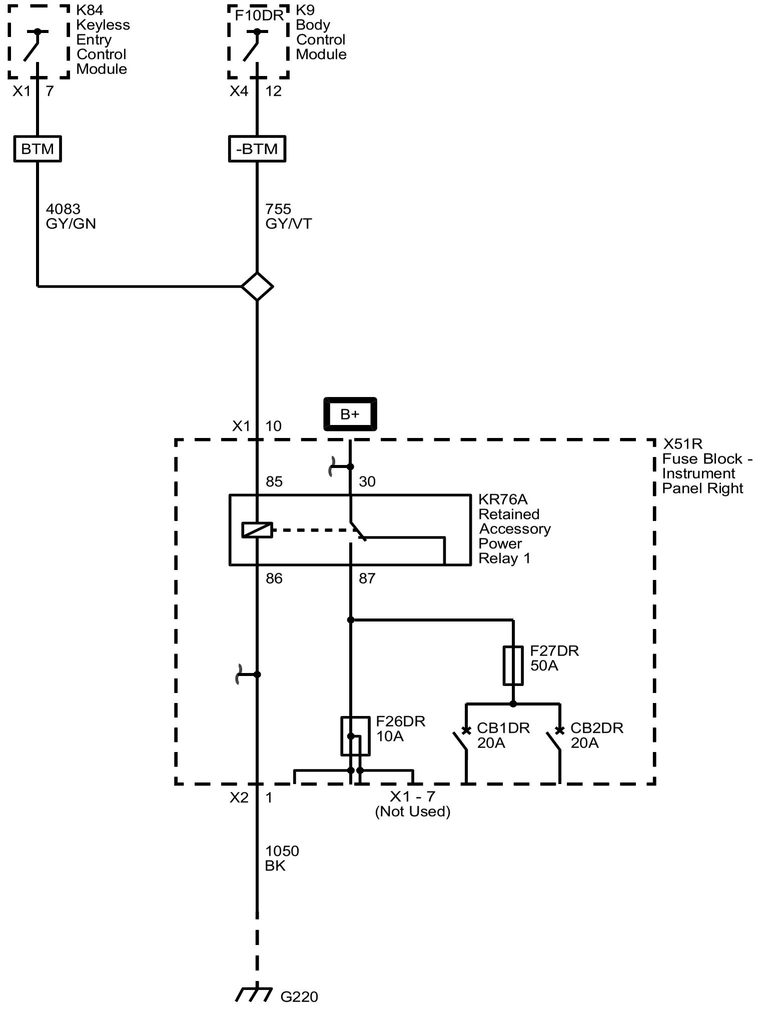
Power Moding Schematics (Accessory Wakeup)


5256316
L O C
D E S C
J163
MYC
5985 VT/YE
X1 9
IGN
T12 Automatic Transmission Assembly
Q8 Control Solenoid Valve Assembly
MQB/MQE
5985 VT/YE
51
IGN
K71 Transmission Control Module
5985 VT/YE
X1 48 (LM2)
X1 33 (LV3/L82/L84/L87)
X1 62 (L3B)
IGN
K20 Engine Control Module
X115 22
5985 VT/YE
LM2
5985 VT/YE
X143 15
5985 BK
17
IGN
K115 Reductant Control Module
A104 Brake Master Cylinder
5985 VT/YE
J327
5985 VT/YE
27
IGN
K160 Brake System Control Module
KL9
5985 VT/YE
4
IGN
T19 Power Supply Transformer
S39 Ignition Switch
M
-BTM
4 VT/YE
X3 5
K9 Body Control Module
X4 22
5985 VT/YE
Kl4/Kl5
5985 VT/YE
X241 3
5985 VT/YE
X2 3
IGN
T1 Accessory DC/ AC Power Inverter Module
K84 Keyless Entry Control Module
M
BTM
5985 VT/YE
X140 22

Power Moding Schematics (Ignition Main Relays)

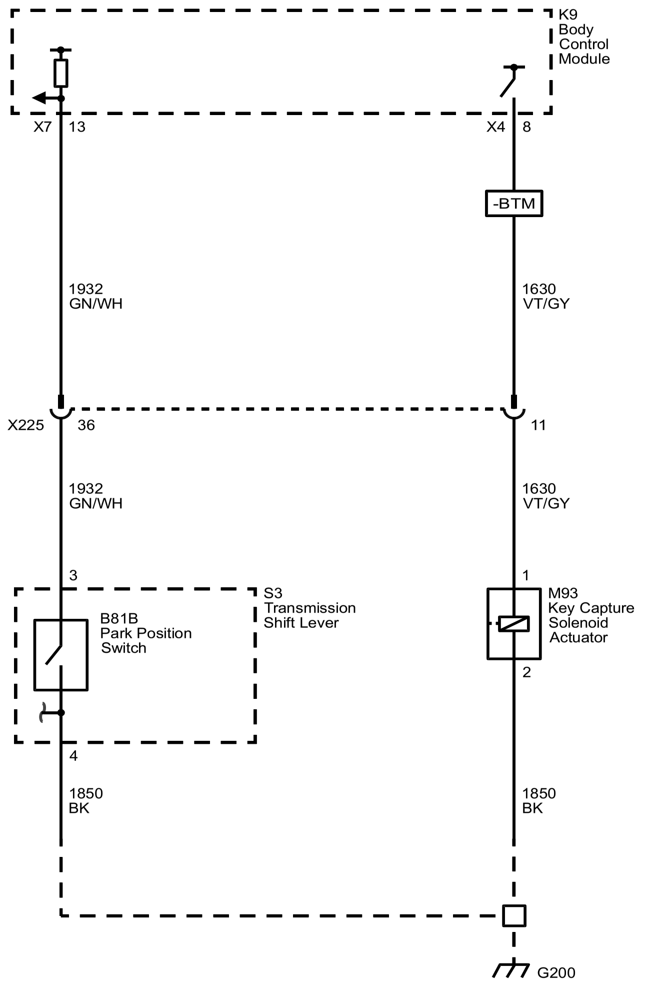

5256317
LOC
DESC
X51R Fuse Block - Instrument Panel Right
F21DR 10A
X2 - 20 (Not Used)
F25DR 15A
X1 - 2 (Not Used)
F24DR 10A
F23DR 10A
X3 - 13 (Not Used)
KR73 Ignition Main Relay
87A
F22DR 7.5A
F20DR 15A
B+
30
87
X1 15
85
86
X2 1
1050 BK
G220
X50A Fuse Block - Underhood
F39UA 10A
X1 - H3 (Not Used)
F37UA 20A
X1 - H1 (Not Used)
F44UA 10A
X4 - A6 (Not Used)
F40UA 10A
F48UA 10A
X3 - A3 (Not Used)
F38UA 10A
X1 - H2 (Not Used)
F47UA 10A
F46UA 15A
KR73 Ignition Main Relay
30
87
B+
X1 G4
85
86
X1 A4
250 BK
G120
5199 GN/VT
5199 GN/VT
J134
5199 GN/VT
5199 GN/VT
K84 Keyless Entry Control Module
N
BTM
S39 Ignition Switch
N
-BTM
3 VT/BK
K9 Body Control Module
X3 6
X4 15

Power Moding Schematics (Retained Accessory Power Relays)


K84
Keyless
Entry
Control
Module
X1 7
BTM
4083
GY/GN
F10DR
K9
Body
Control
Module
X4 12
-BTM
755
GY/VT
B+
X1 10
85
30
KR76A
Retained
Accessory
Power
Relay 1
86
87
X51R
Fuse Block -
Instrument
Panel Right
F27DR
50A
F26DR
10A
CB1DR
20A
CB2DR
20A
X2 1
X1 - 7
(Not Used)
1050
BK
G220

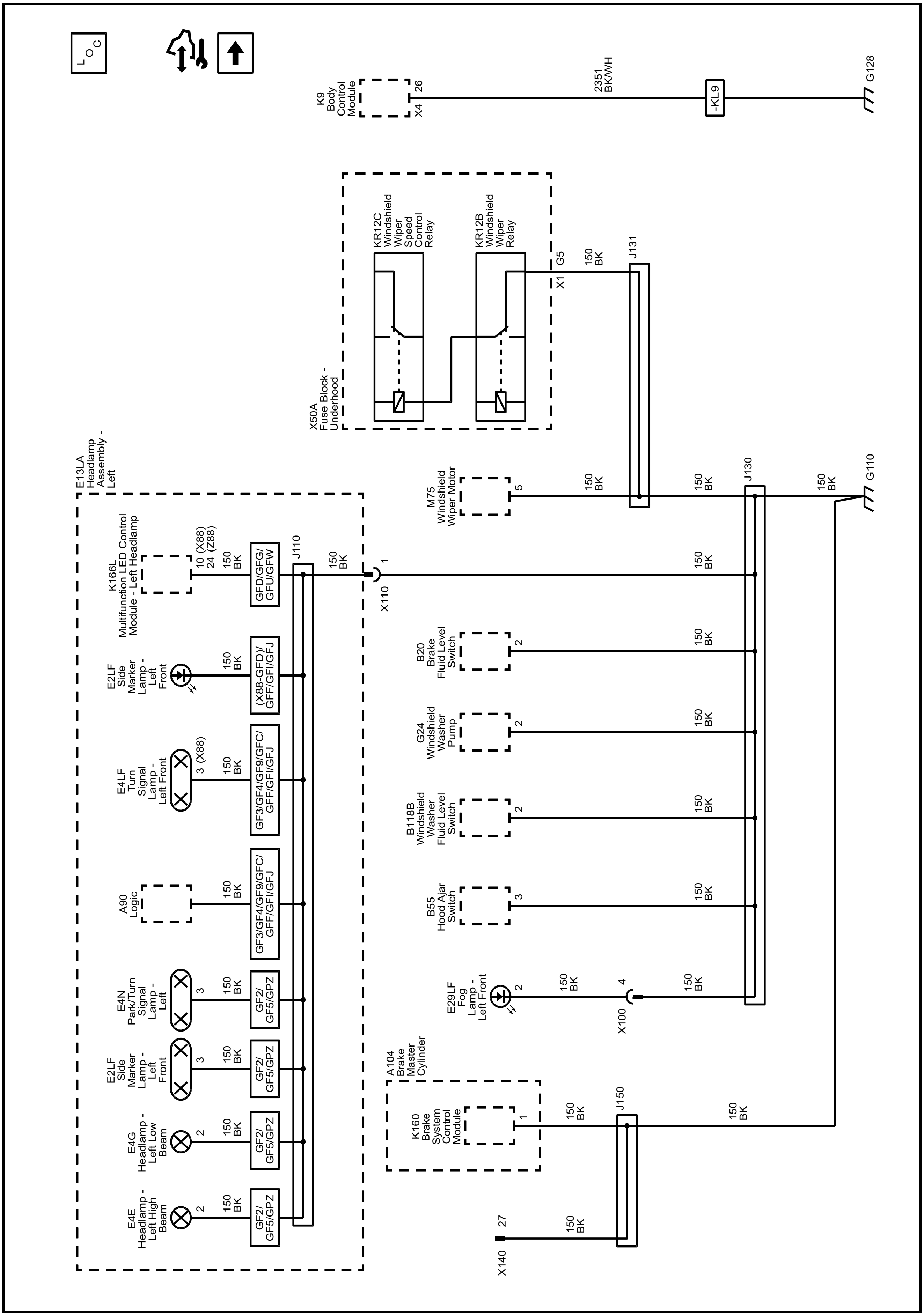
5256319

Ignition Lock Schematics (Ignition Lock)

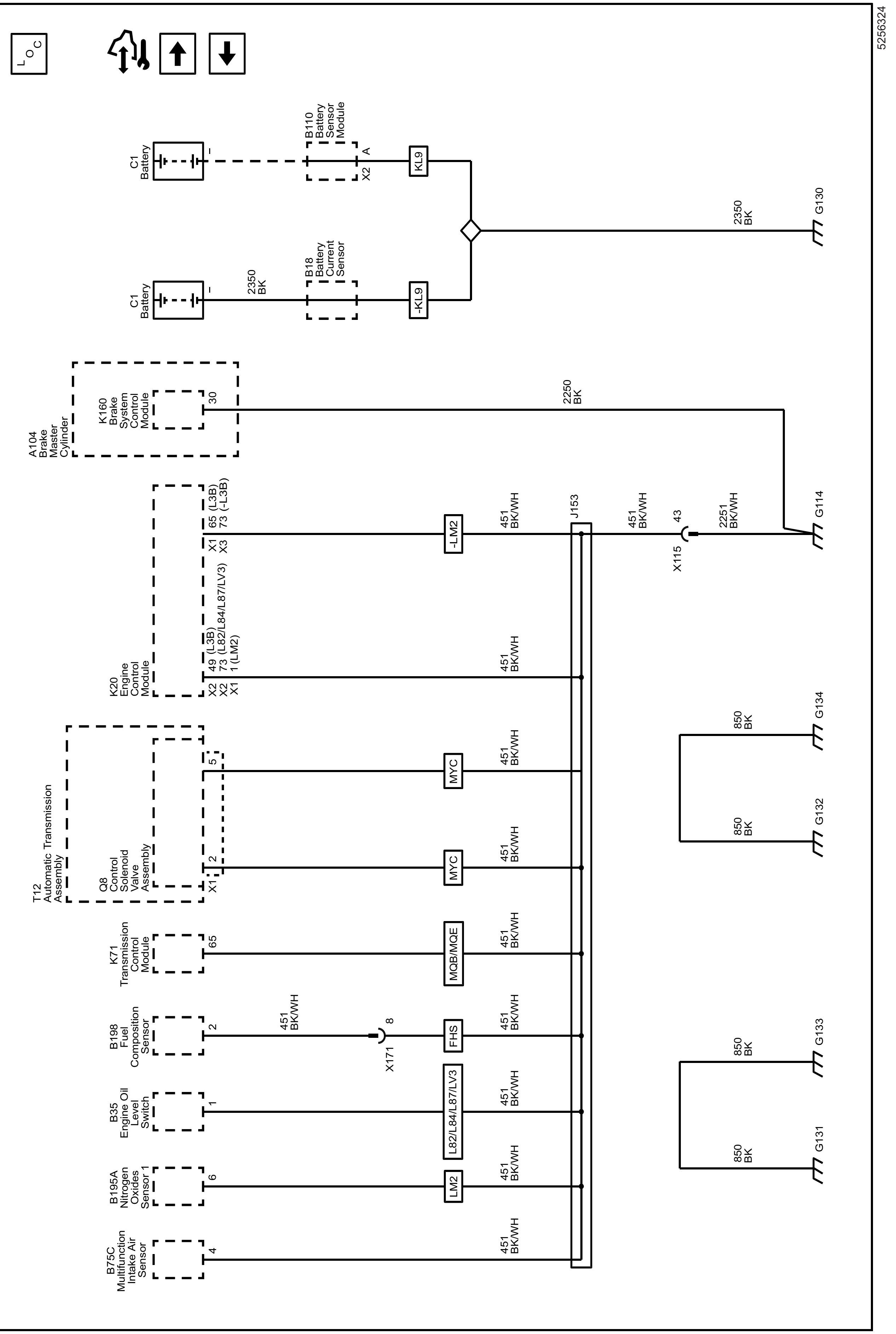

K9
Body
Control
Module
X7 13
X4 8
-BTM
1932
GN/WH
1630
VT/GY
X225 36
11
1932
GN/WH
1630
VT/GY
3
S3
Transmission
Shift Lever
B81B
Park Position
Switch
4
1
M93
Key Capture
Solenoid
Actuator
2
1850
BK
1850
BK
G200

5256322

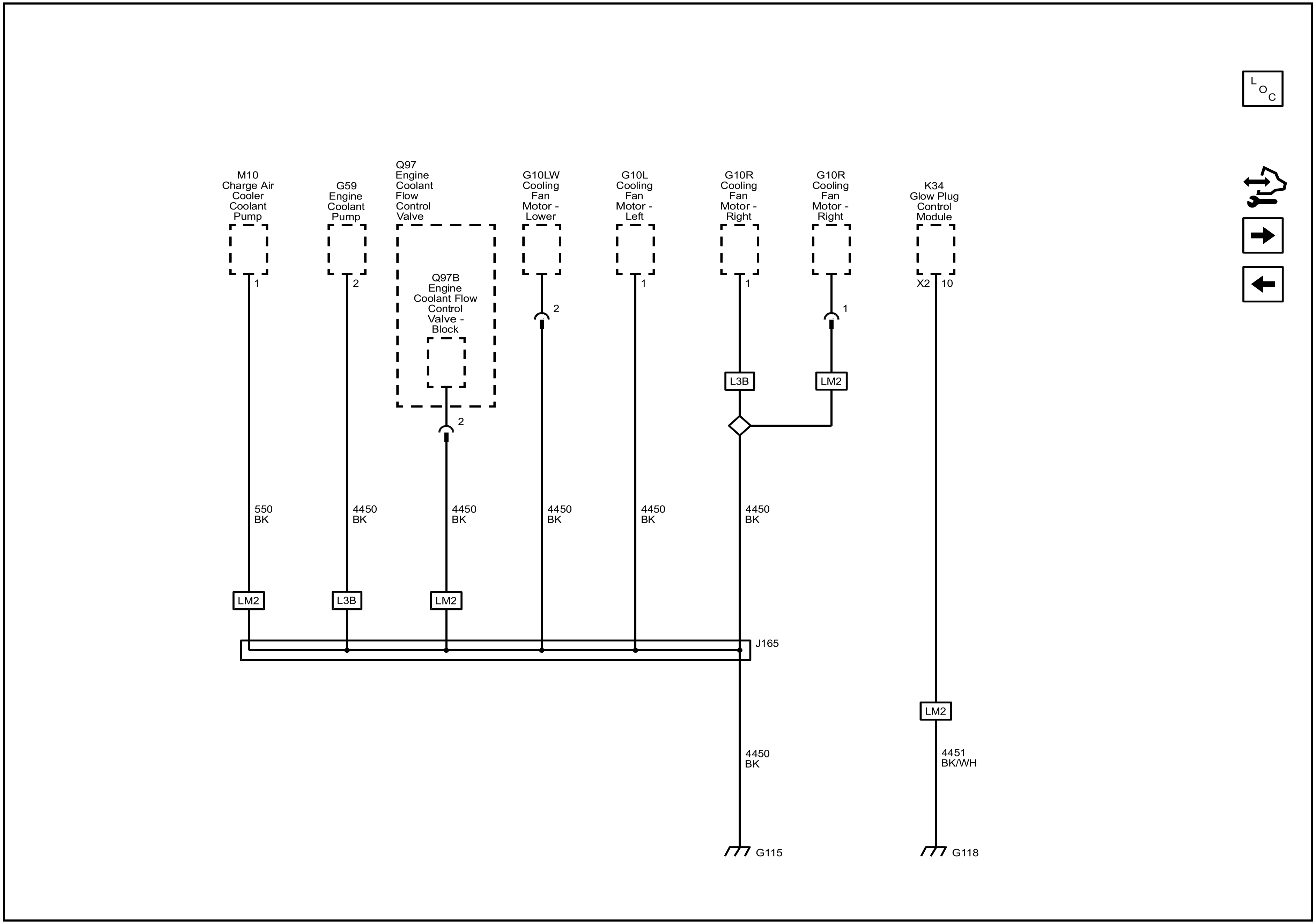
Ground Distribution Schematics (G110 and G128)


5256323
L O C
K9 Body Control Module
X4 26
2351 BK/WH
-KL9
G128
X50A Fuse Block - Underhood
KR12C Windshield Wiper Speed Control Relay
KR12B Windshield Wiper Relay
X1 G5
150 BK
J131
M75 Windshield Wiper Motor
5
150 BK
J130
G110
E13LA Headlamp Assembly - Left
K166L Multifunction LED Control Module - Left Headlamp
10 (X88) 24 (Z88)
GFD/GFG/ GFU/GFW
J110
X110 1
E2LF Side Marker Lamp - Left Front
(X88-GFD)/ GFF/GFI/GFJ
E4LF Turn Signal Lamp - Left Front
3 (X88)
GF3/GF4/GF9/GFC/ GFF/GFI/GFJ
A90 Logic
GF3/GF4/GF9/GFC/ GFF/GFI/GFJ
E4N Park/Turn Signal Lamp - Left
3
GF2/ GF5/GPZ
E2LF Side Marker Lamp - Left Front
3
GF2/ GF5/GPZ
E4G Headlamp - Left Low Beam
2
GF2/ GF5/GPZ
E4E Headlamp - Left High Beam
2
GF2/ GF5/GPZ
B20 Brake Fluid Level Switch
2
G24 Windshield Washer Pump
2
B118B Windshield Washer Fluid Level Switch
2
B55 Hood Ajar Switch
3
E29LF Fog Lamp - Left Front
2
X100 4
A104 Brake Master Cylinder
K160 Brake System Control Module
1
J150
X140 27

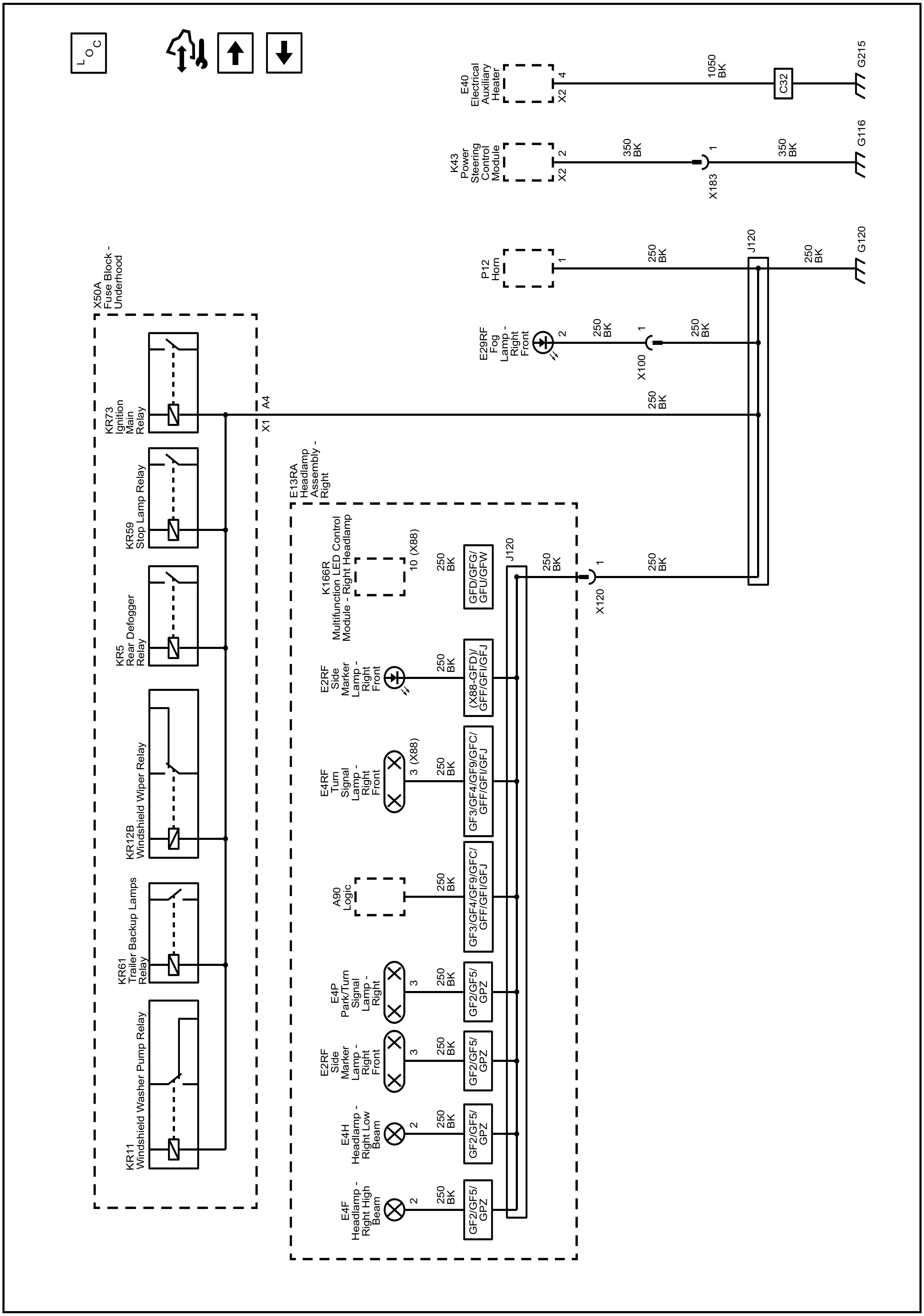
Ground Distribution Schematics (G114, G130, G131, G132, G133, and G134)


5256324
C1 Battery
–
B110 Battery Sensor Module
X2 A
KL9
2350 BK
G130
C1 Battery
–
2350 BK
B18 Battery Current Sensor
-KL9
A104 Brake Master Cylinder
K160 Brake System Control Module
30
2250 BK
G114
K20 Engine Control Module
X1 65 (L3B)
X3 73 (-L3B)
-LM2
451 BK/WH
J153
451 BK/WH
43
X115
2251 BK/WH
X2 49 (L3B)
X2 73 (L82/L84/L87/LV3)
X1 1 (LM2)
451 BK/WH
T12 Automatic Transmission Assembly
Q8 Control Solenoid Valve Assembly
X1
5
2
MYC
451 BK/WH
MYC
451 BK/WH
850 BK
G134
850 BK
G132
K71 Transmission Control Module
65
MQB/MQE
451 BK/WH
B198 Fuel Composition Sensor
2
451 BK/WH
8
X171
FHS
451 BK/WH
850 BK
G133
B35 Engine Oil Level Switch
1
L82/L84/L87/LV3
451 BK/WH
850 BK
G131
B195A Nitrogen Oxides Sensor 1
6
LM2
451 BK/WH
B75C Multifunction Intake Air Sensor
4
451 BK/WH

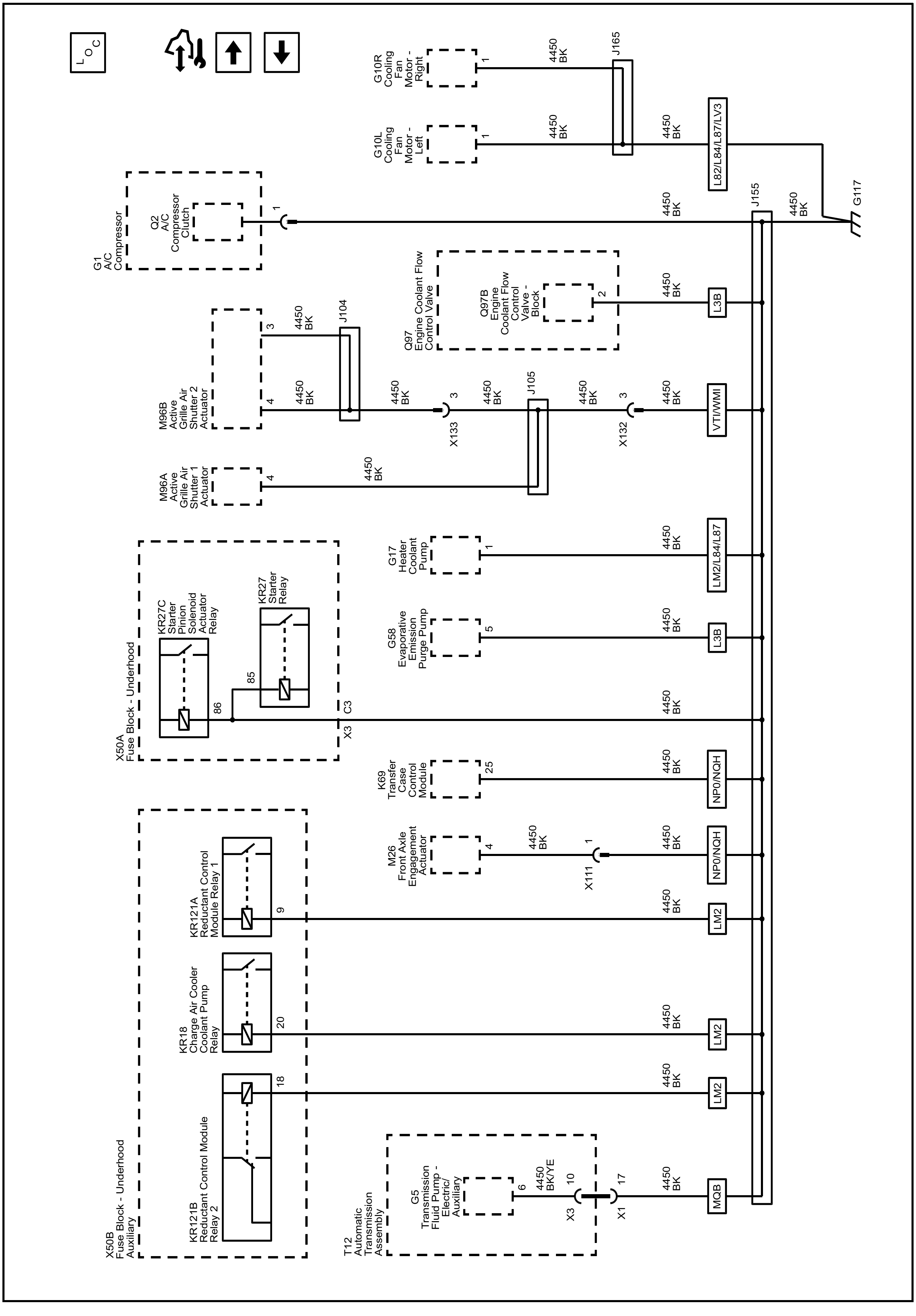
Ground Distribution Schematics (G115 and G118 (L3B/LM2))


M10
Charge Air
Cooler
Coolant
Pump
1
550
BK
LM2
G59
Engine
Coolant
Pump
2
4450
BK
L3B
Q97
Engine
Coolant
Flow
Control
Valve
Q97B
Engine
Coolant Flow
Control
Valve -
Block
2
4450
BK
LM2
G10LW
Cooling
Fan
Motor -
Lower
2
4450
BK
G10L
Cooling
Fan
Motor -
Left
1
4450
BK
G10R
Cooling
Fan
Motor -
Right
1
L3B
4450
BK
G10R
Cooling
Fan
Motor -
Right
1
LM2
J165
4450
BK
G115
K34
Glow Plug
Control
Module
X2
10
LM2
4451
BK/WH
G118
L
O
C
5256325

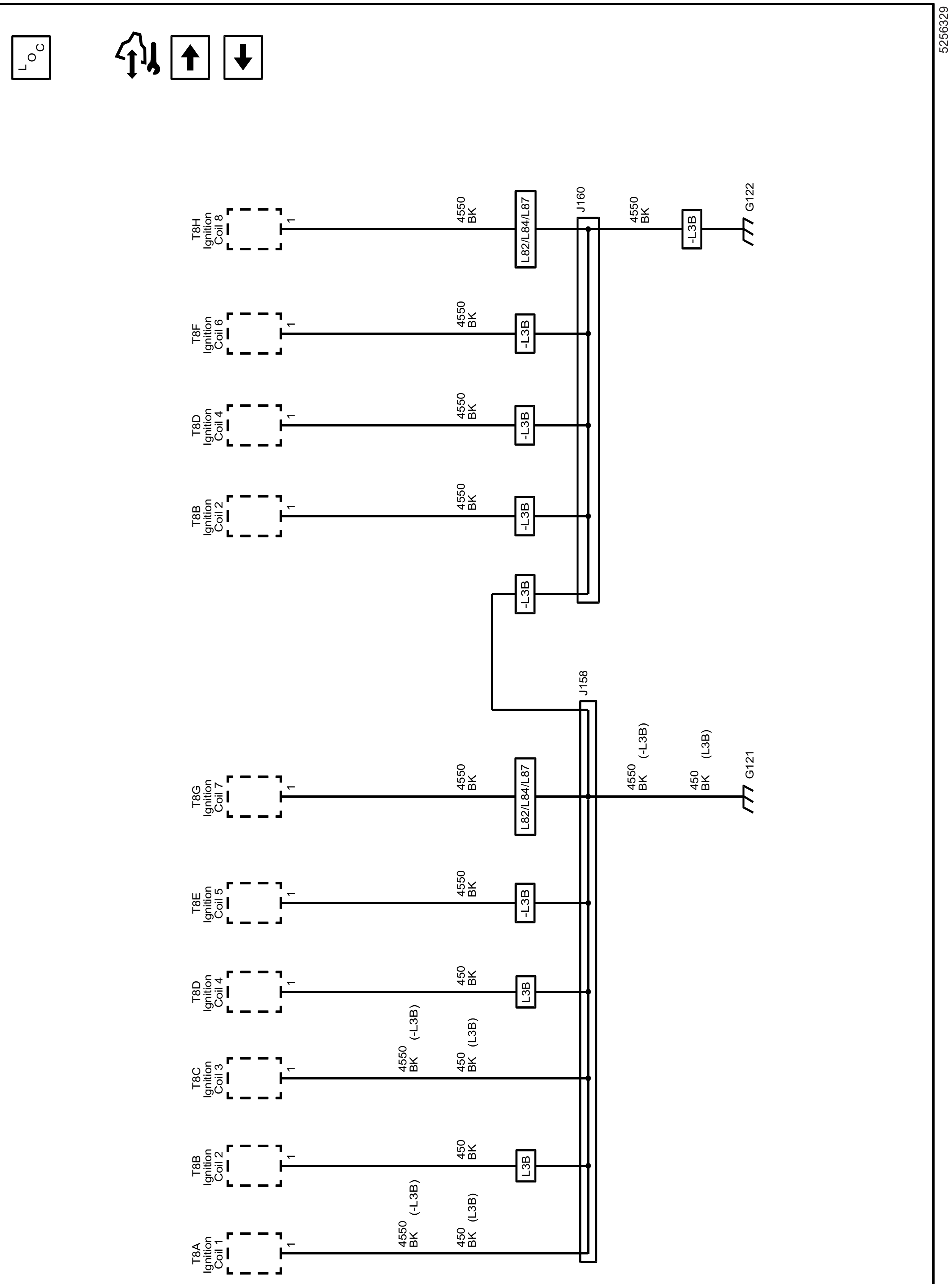
Ground Distribution Schematics (G116, G120, and G215)


5256326
L O C
X50A Fuse Block - Underhood
KR73 Ignition Main Relay
KR59 Stop Lamp Relay
KR5 Rear Defogger Relay
KR12B Windshield Wiper Relay
KR61 Trailer Backup Lamps Relay
KR11 Windshield Washer Pump Relay
X1 A4
E13RA Headlamp Assembly - Right
K166R Multifunction LED Control Module - Right Headlamp
10 (X88)
GFD/GFG/GFU/GFW
E2RF Side Marker Lamp - Right Front
(X88-GFD)/GFF/GFI/GFJ
E4RF Turn Signal Lamp - Right Front
3 (X88)
GF3/GF4/GF9/GFC/GFF/GFI/GFJ
A90 Logic
GF3/GF4/GF9/GFC/GFF/GFI/GFJ
E4P Park/Turn Signal Lamp - Right
3
GF2/GF5/GPZ
E2RF Side Marker Lamp - Right Front
3
GF2/GF5/GPZ
E4H Headlamp - Right Low Beam
2
GF2/GF5/GPZ
E4F Headlamp - Right High Beam
2
GF2/GF5/GPZ
250 BK
J120
X120
1
E29RF Fog Lamp - Right Front
2
X100
1
P12 Horn
1
G120
K43 Power Steering Control Module
X2 2
350 BK
X183
1
G116
E40 Electrical Auxiliary Heater
X2 4
1050 BK
C32
G215

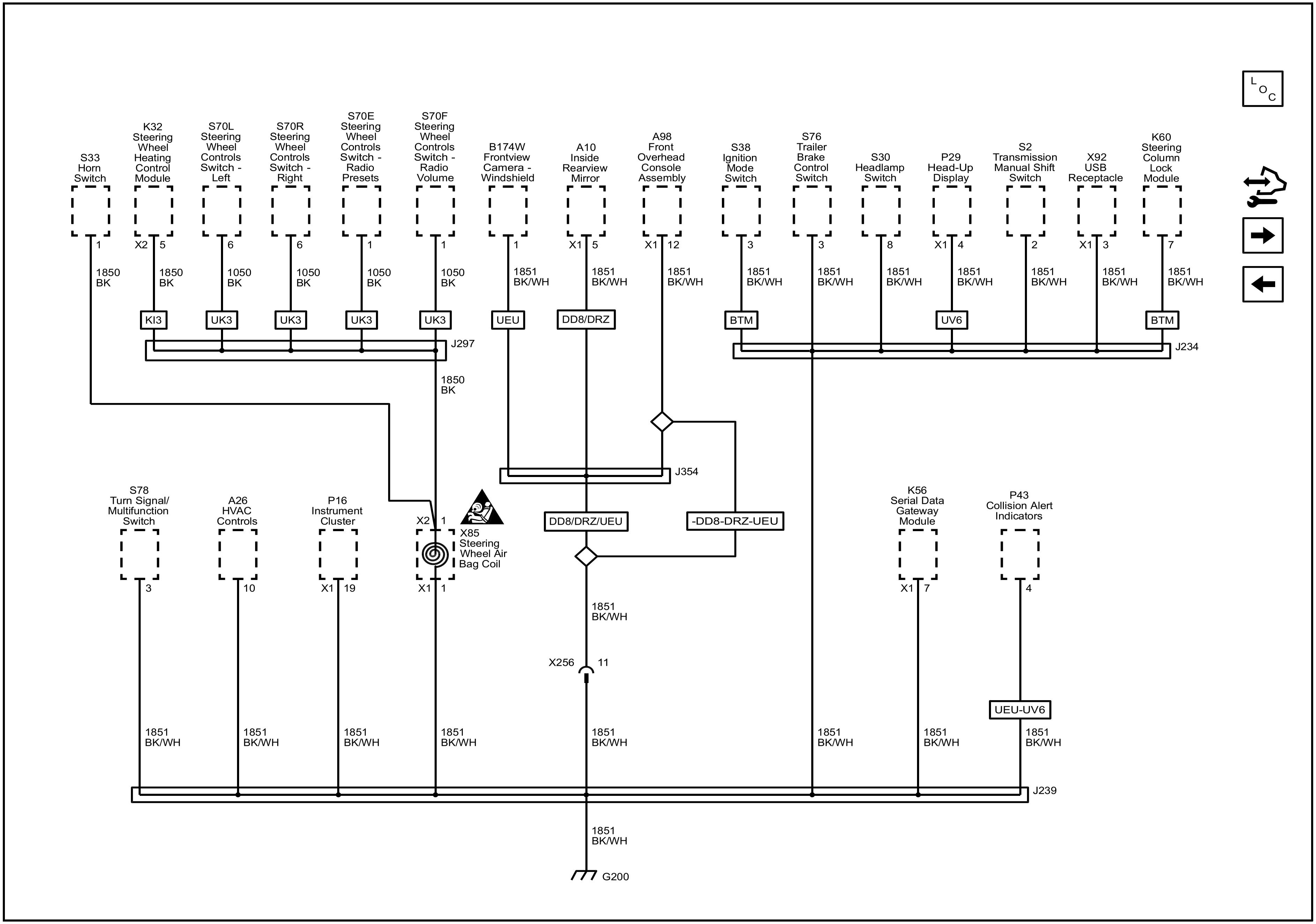
Ground Distribution Schematics (G117)


5256327
L O C
G10R Cooling Fan Motor - Right
G10L Cooling Fan Motor - Left
1
4450 BK
J165
L82/L84/L87/LV3
G117
J155
G1 A/C Compressor
Q2 A/C Compressor Clutch
Q97 Engine Coolant Flow Control Valve
Q97B Engine Coolant Flow Control Valve - Block
2
L3B
M96B Active Grille Air Shutter 2 Actuator
3
4
J104
X133
J105
X132
VTI/WMI
M96A Active Grille Air Shutter 1 Actuator
G17 Heater Coolant Pump
LM2/L84/L87
X50A Fuse Block - Underhood
KR27C Starter Pinion Solenoid Actuator Relay
KR27 Starter Relay
85
86
C3
X3
G58 Evaporative Emission Purge Pump
5
K69 Transfer Case Control Module
25
NP0/NQH
M26 Front Axle Engagement Actuator
X111
KR121A Reductant Control Module Relay 1
9
LM2
KR18 Charge Air Cooler Coolant Pump Relay
20
X50B Fuse Block - Underhood Auxiliary
KR121B Reductant Control Module Relay 2
18
T12 Automatic Transmission Assembly
G5 Transmission Fluid Pump - Electric/ Auxiliary
6
4450 BK/YE
10
17
X1
MQB

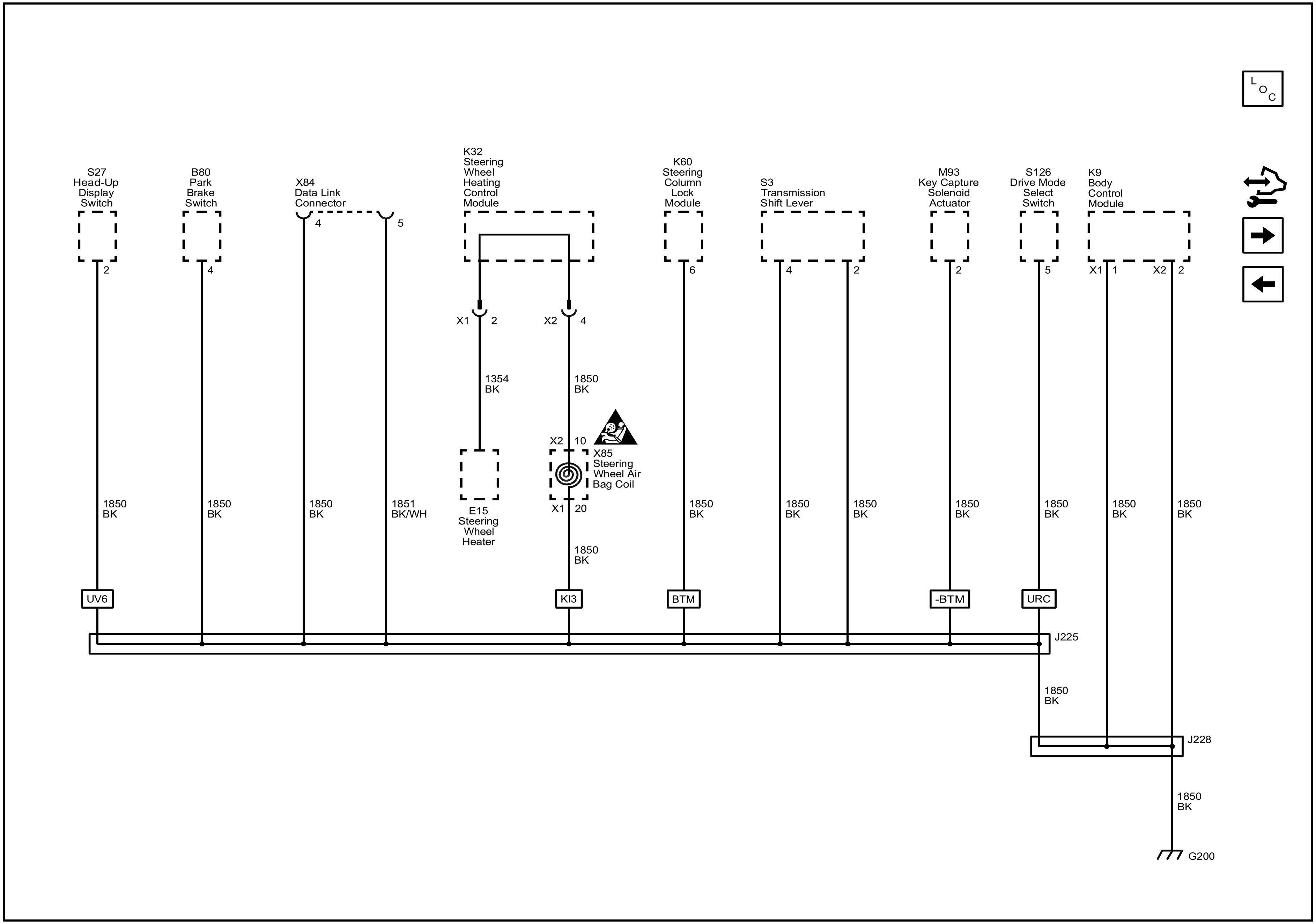
Ground Distribution Schematics (G121 and G122 (-LM2))


5256329
T8H Ignition Coil 8
T8F Ignition Coil 6
T8D Ignition Coil 4
T8B Ignition Coil 2
T8G Ignition Coil 7
T8E Ignition Coil 5
T8D Ignition Coil 4
T8C Ignition Coil 3
T8B Ignition Coil 2
T8A Ignition Coil 1
1
4550 BK
450 BK
4550 BK (-L3B)
450 BK (L3B)
L82/L84/L87
-L3B
L3B
J160
J158
G122
G121

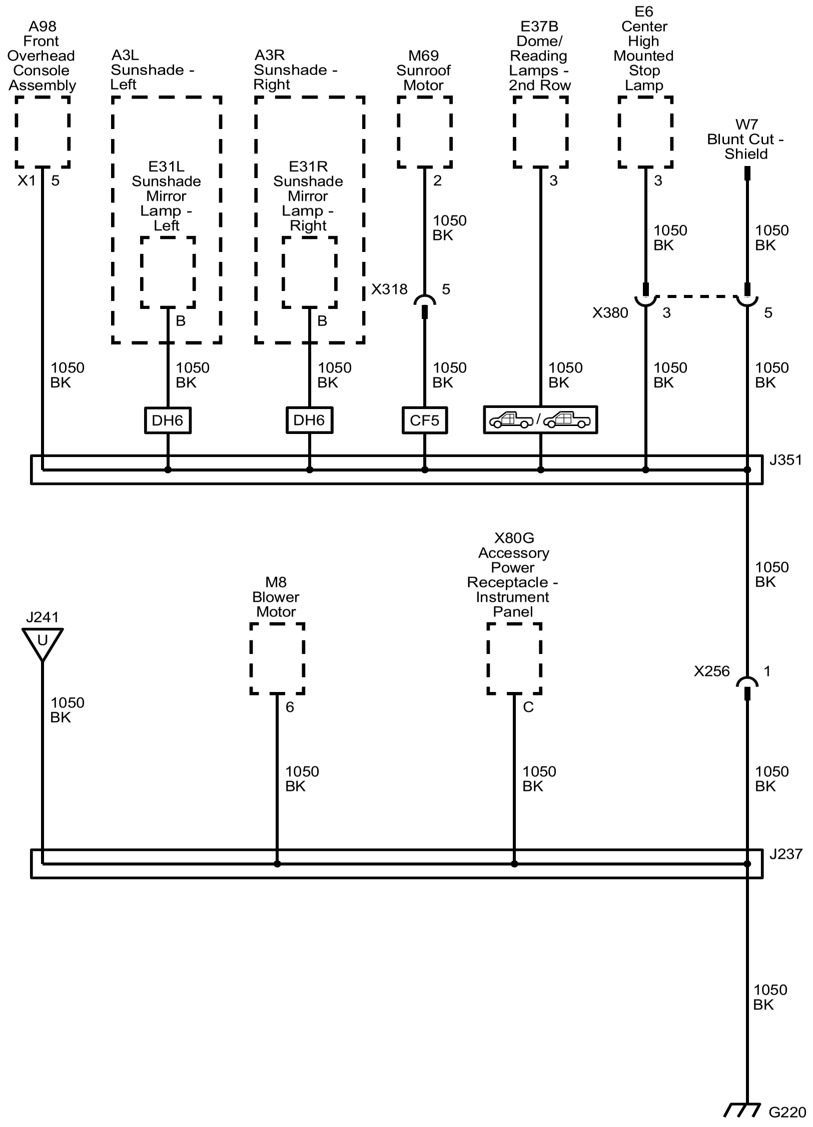
Ground Distribution Schematics (G200 (1 of 2))


L O C
S33 Horn Switch
K32 Steering Wheel Heating Control Module
S70L Steering Wheel Controls Switch - Left
S70R Steering Wheel Controls Switch - Right
S70E Steering Wheel Controls Switch - Radio Presets
S70F Steering Wheel Controls Switch - Radio Volume
B174W Frontview Camera - Windshield
A10 Inside Rearview Mirror
A98 Front Overhead Console Assembly
S38 Ignition Mode Switch
S76 Trailer Brake Control Switch
S30 Headlamp Switch
P29 Head-Up Display
S2 Transmission Manual Shift Switch
X92 USB Receptacle
K60 Steering Column Lock Module
1
X2 5
6
6
1
1
1
X1 5
X1 12
3
3
8
X1 4
2
X1 3
7
1850 BK
1050 BK
1851 BK/WH
KI3
UK3
UEU
DD8/DRZ
BTM
UV6
J297
J234
J354
DD8/DRZ/UEU
-DD8-DRZ-UEU
S78 Turn Signal/ Multifunction Switch
A26 HVAC Controls
P16 Instrument Cluster
X2 1
X85 Steering Wheel Air Bag Coil
X1 1
X1 19
10
K56 Serial Data Gateway Module
X1 7
P43 Collision Alert Indicators
4
X256
11
UEU-UV6
J239
G200
5256330

Ground Distribution Schematics (G200 (2 of 2))

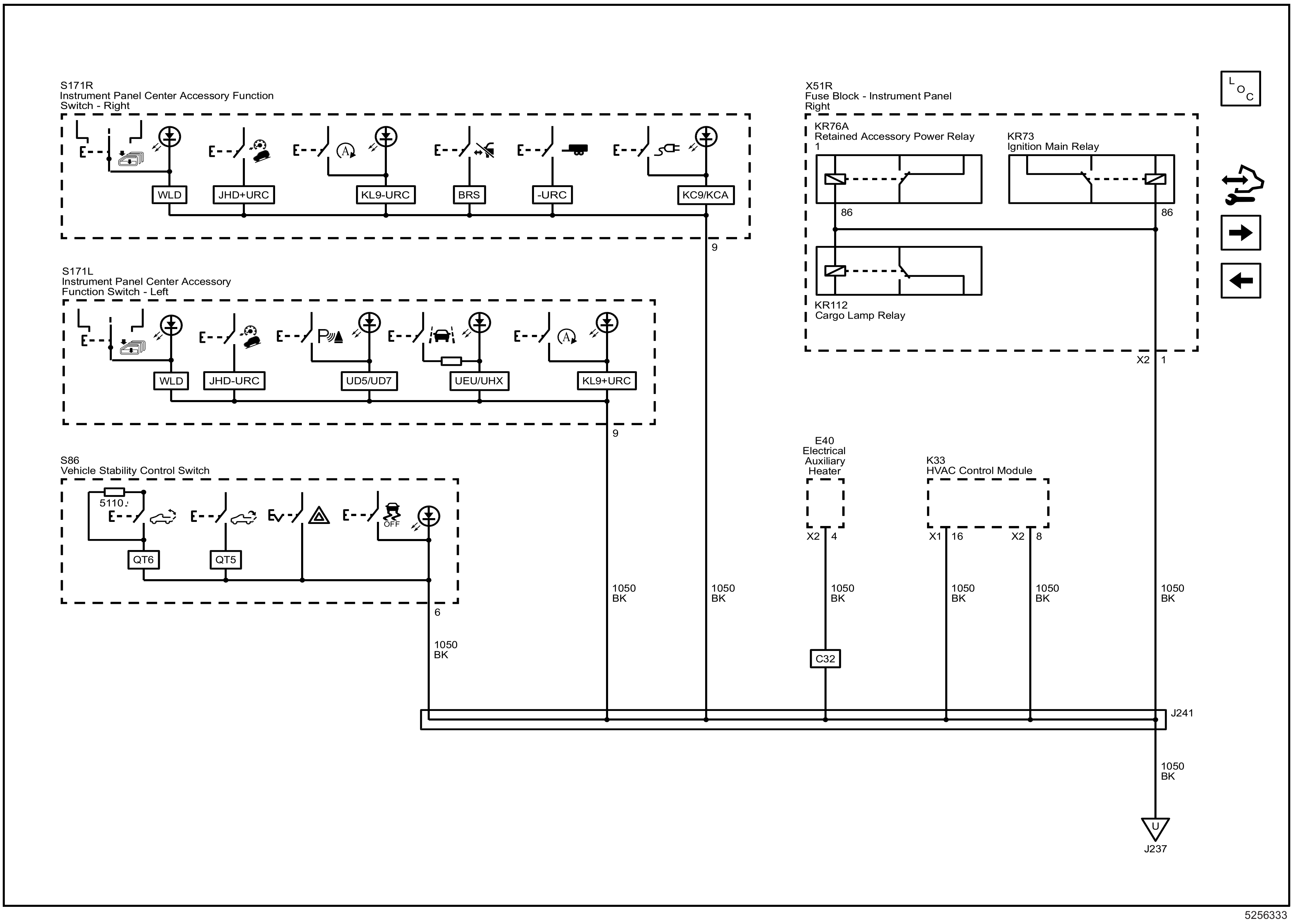

L O C
S27
Head-Up
Display
Switch
2
1850
BK
UV6
B80
Park
Brake
Switch
4
1850
BK
X84
Data Link
Connector
4
5
1850
BK
1851
BK/WH
K32
Steering
Wheel
Heating
Control
Module
X1 2
X2 4
1354
BK
E15
Steering
Wheel
Heater
1850
BK
X2 10
X85
Steering
Wheel Air
Bag Coil
X1 20
1850
BK
KI3
K60
Steering
Column
Lock
Module
6
1850
BK
BTM
S3
Transmission
Shift Lever
4
2
1850
BK
1850
BK
M93
Key Capture
Solenoid
Actuator
2
1850
BK
-BTM
S126
Drive Mode
Select
Switch
5
1850
BK
URC
K9
Body
Control
Module
X1 1
X2 2
1850
BK
1850
BK
J225
1850
BK
J228
1850
BK
G200
5256331

Ground Distribution Schematics (G220 (1 of 2))

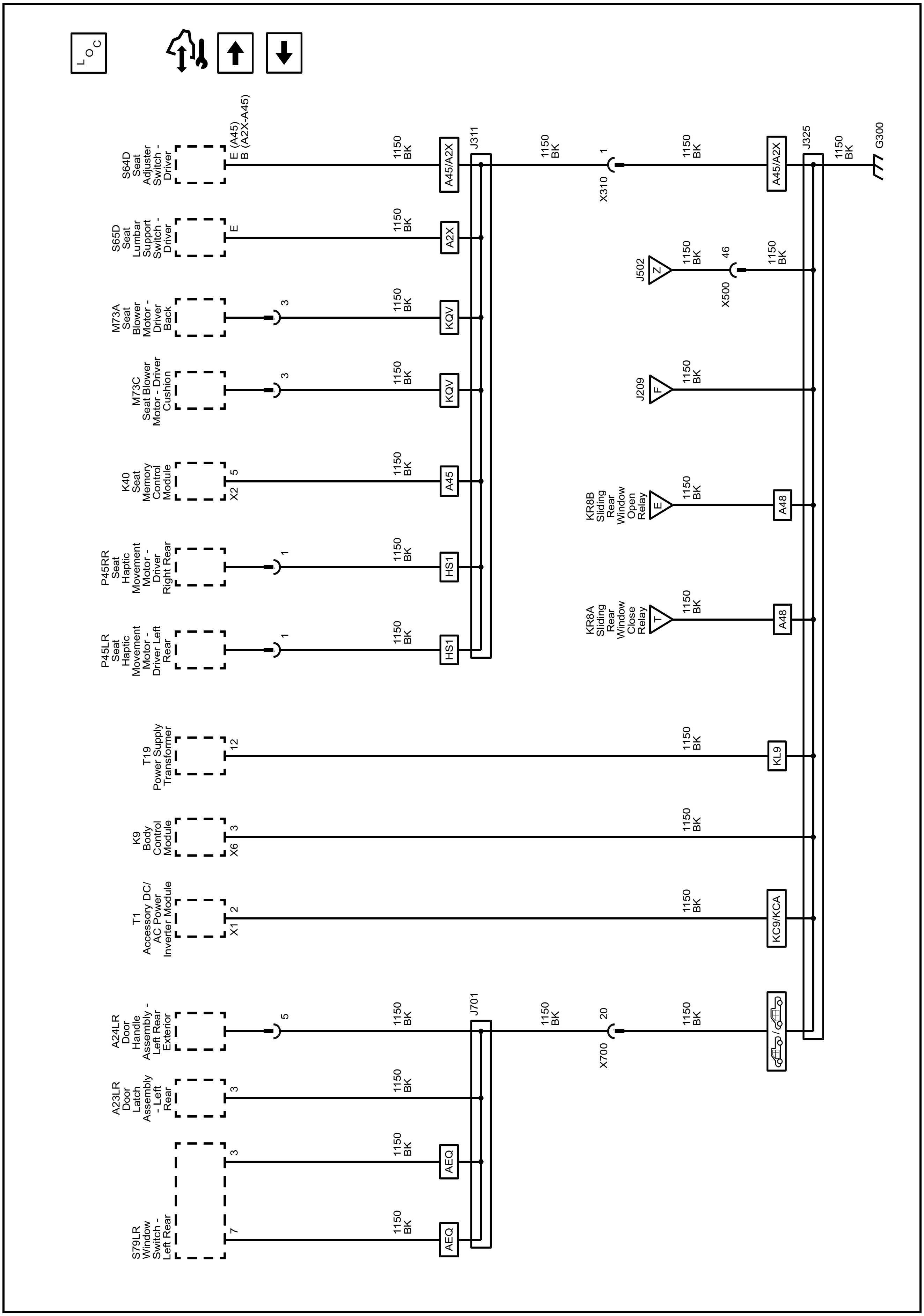

A98
Front
Overhead
Console
Assembly
X1 5
A3L
Sunshade -
Left
E31L
Sunshade
Mirror
Lamp -
Left
B
A3R
Sunshade -
Right
E31R
Sunshade
Mirror
Lamp -
Right
B
M69
Sunroof
Motor
2
X318 5
E37B
Dome/
Reading
Lamps -
2nd Row
3
E6
Center
High
Mounted
Stop
Lamp
3
W7
Blunt Cut -
Shield
X380 3
5
1050
BK
DH6
DH6
CF5
J351
J241
U
M8
Blower
Motor
6
X80G
Accessory
Power
Receptacle -
Instrument
Panel
C
X256 1
J237
G220

5256332

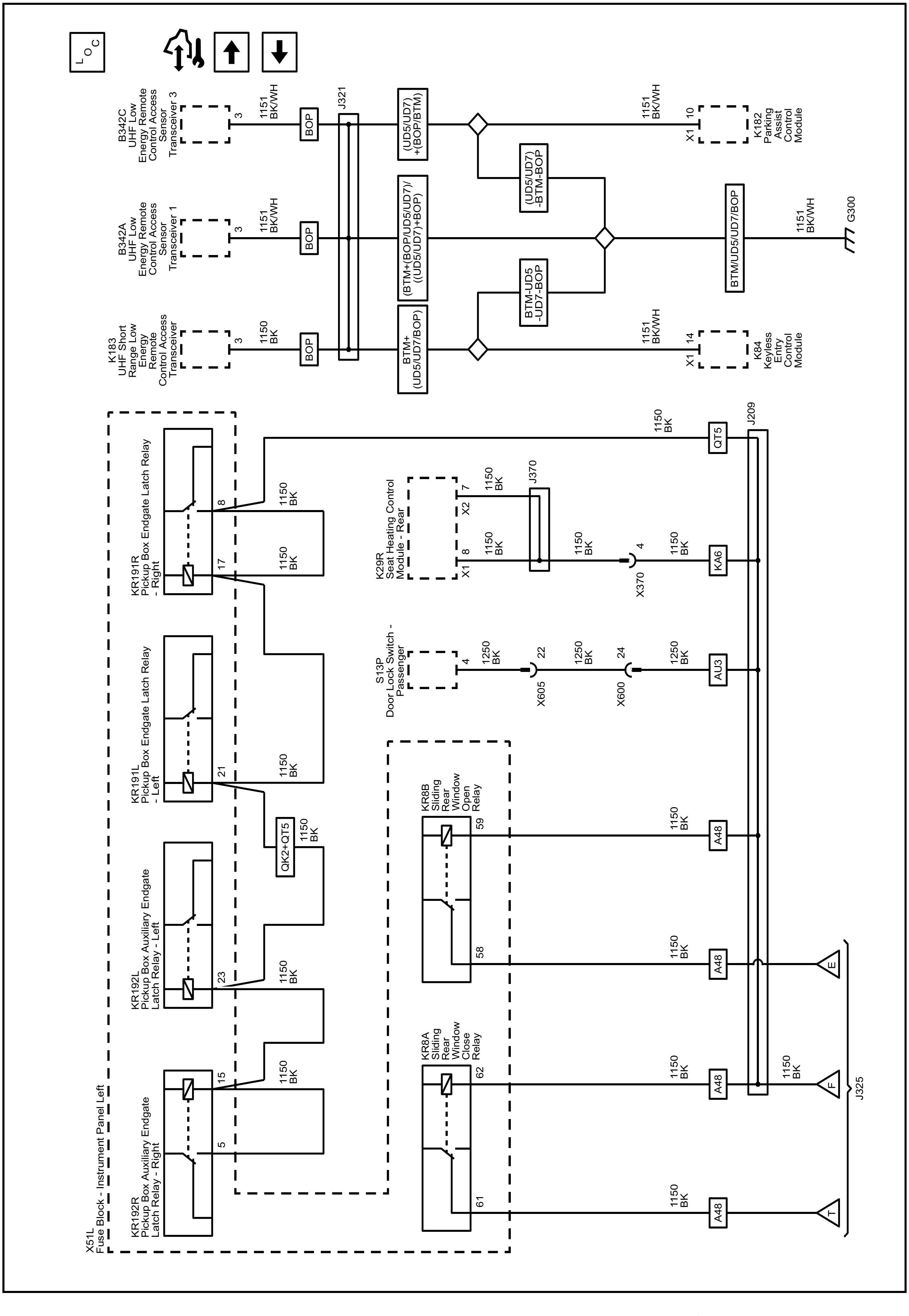
Ground Distribution Schematics (G220 (2 of 2))


S171R
Instrument Panel Center Accessory Function Switch - Right
WLD
JHD+URC
KL9-URC
BRS
-URC
KC9/KCA
9
S171L
Instrument Panel Center Accessory Function Switch - Left
WLD
JHD-URC
UD5/UD7
UEU/UHX
KL9+URC
9
S86
Vehicle Stability Control Switch
5110.
OFF
QT6
QT5
6
1050
BK
X51R
Fuse Block - Instrument Panel Right
KR76A
Retained Accessory Power Relay
1
KR73
Ignition Main Relay
86
86
KR112
Cargo Lamp Relay
X2 1
E40
Electrical Auxiliary Heater
X2 4
C32
K33
HVAC Control Module
X1 16
X2 8
1050
BK
J241
U
J237
L O C
5256333

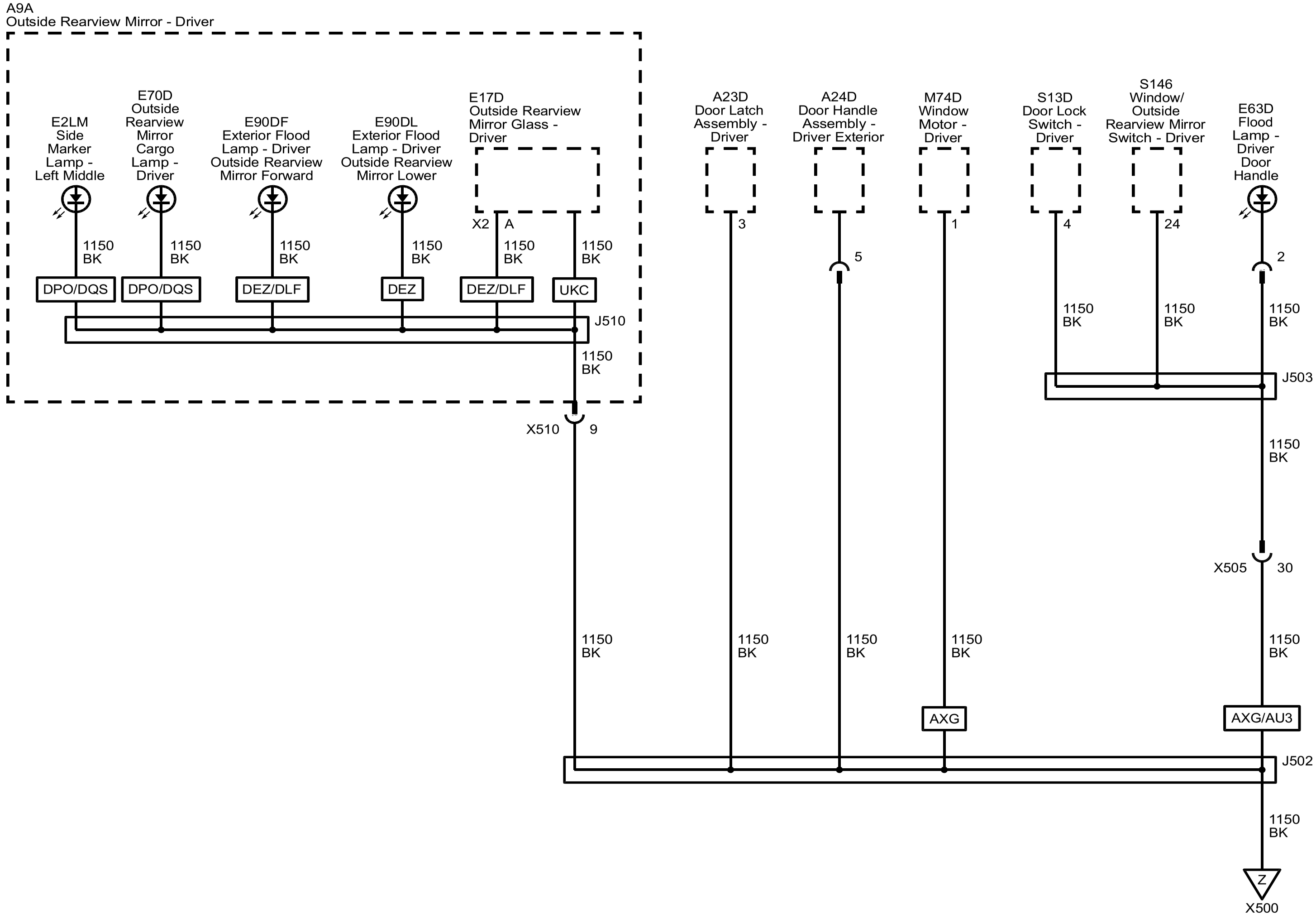
Ground Distribution Schematics (G300 (1 of 3))


5256334
LOC
S64D Seat Adjuster Switch - Driver
E (A45)
B (A2X-A45)
S65D Seat Lumbar Support Switch - Driver
E
M73A Seat Blower Motor - Driver Back
3
M73C Seat Blower Motor - Driver Cushion
3
K40 Seat Memory Control Module
X2 5
P45RR Seat Haptic Movement Motor - Driver Right Rear
1
P45LR Seat Haptic Movement Motor - Driver Left Rear
1
T19 Power Supply Transformer
12
K9 Body Control Module
X6 3
T1 Accessory DC/AC Power Inverter Module
X1 2
A24LR Door Handle Assembly - Left Rear Exterior
5
A23LR Door Latch Assembly - Left Rear
3
S79LR Window Switch - Left Rear
3
7
1150 BK
A45/A2X
A2X
KQV
KQV
A45
HS1
HS1
AEQ
AEQ
J311
J701
X310
1
X700
20
J502
Z
X500
46
J209
F
KR8B Sliding Rear Window Open Relay
E
A48
KR8A Sliding Rear Window Close Relay
T
A48
KL9
KC9/KCA
J325
A45/A2X
G300

Ground Distribution Schematics (G300 (2 of 3))

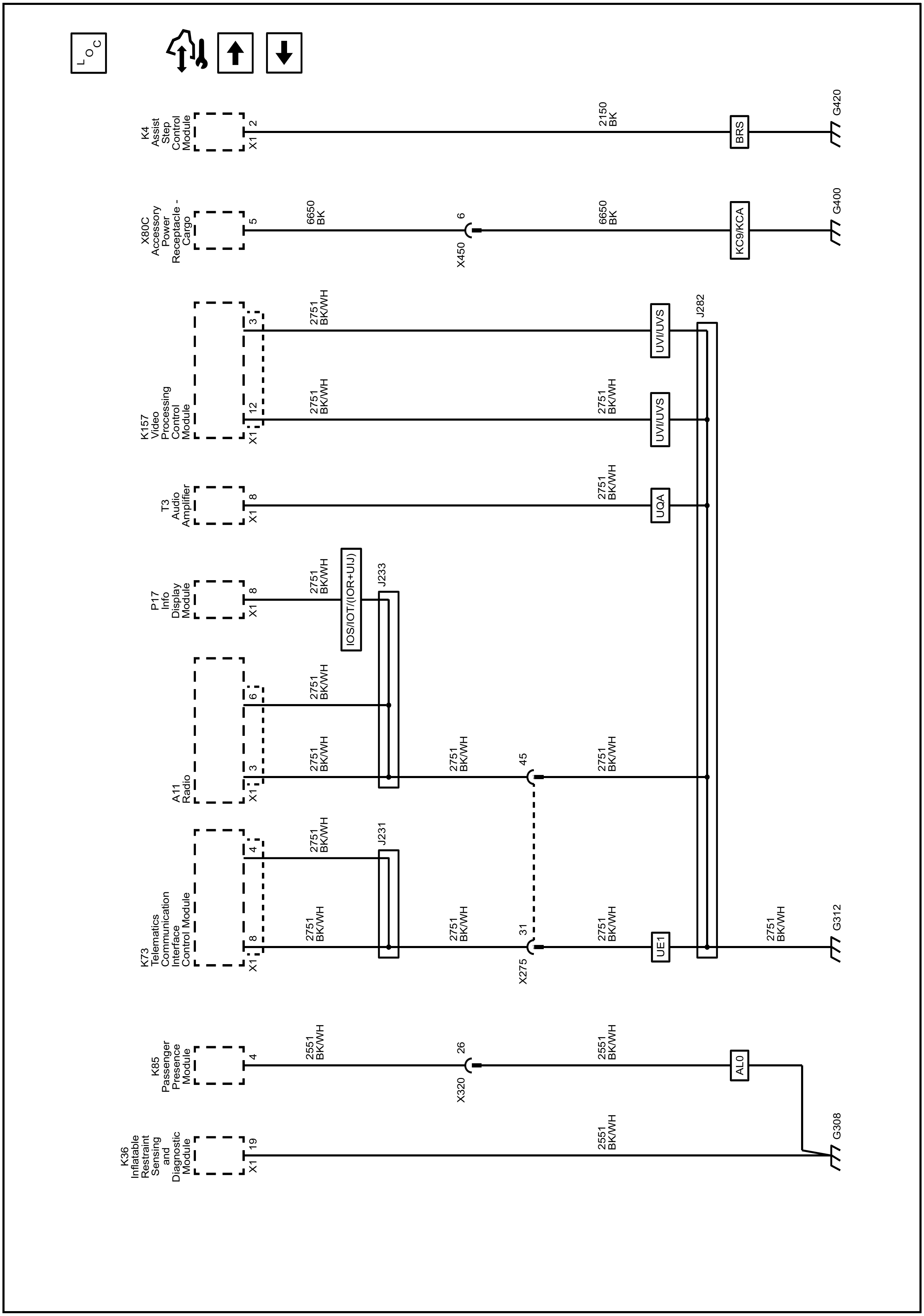

5256335
L O C
K183 UHF Short Range Low Energy Remote Control Access Transceiver
B342A UHF Low Energy Remote Control Access Sensor Transceiver 1
B342C UHF Low Energy Remote Control Access Sensor Transceiver 3
3
1150 BK
1151 BK/WH
BOP
J321
BTM+ (UD5/UD7/BOP)
(BTM+(BOP/UD5/UD7)/ ((UD5/UD7)+BOP)
(UD5/UD7) +(BOP/BTM)
BTM-UD5 -UD7-BOP
(UD5/UD7) -BTM-BOP
BTM/UD5/UD7/BOP
X1 14
K84 Keyless Entry Control Module
X1 10
K182 Parking Assist Control Module
G300
X51L Fuse Block - Instrument Panel Left
KR191R Pickup Box Endgate Latch Relay - Right
KR191L Pickup Box Endgate Latch Relay - Left
KR192L Pickup Box Auxiliary Endgate Latch Relay - Left
KR192R Pickup Box Auxiliary Endgate Latch Relay - Right
8
17
21
23
15
5
QK2+QT5
QT5
J209
K29R Seat Heating Control Module - Rear
X2 7
X1 8
J370
X370
4
KA6
S13P Door Lock Switch - Passenger
1250 BK
22
24
X605
X600
AU3
KR8B Sliding Rear Window Open Relay
KR8A Sliding Rear Window Close Relay
59
58
62
61
A48
E
F
T
J325

Ground Distribution Schematics (G300 (3 of 3))

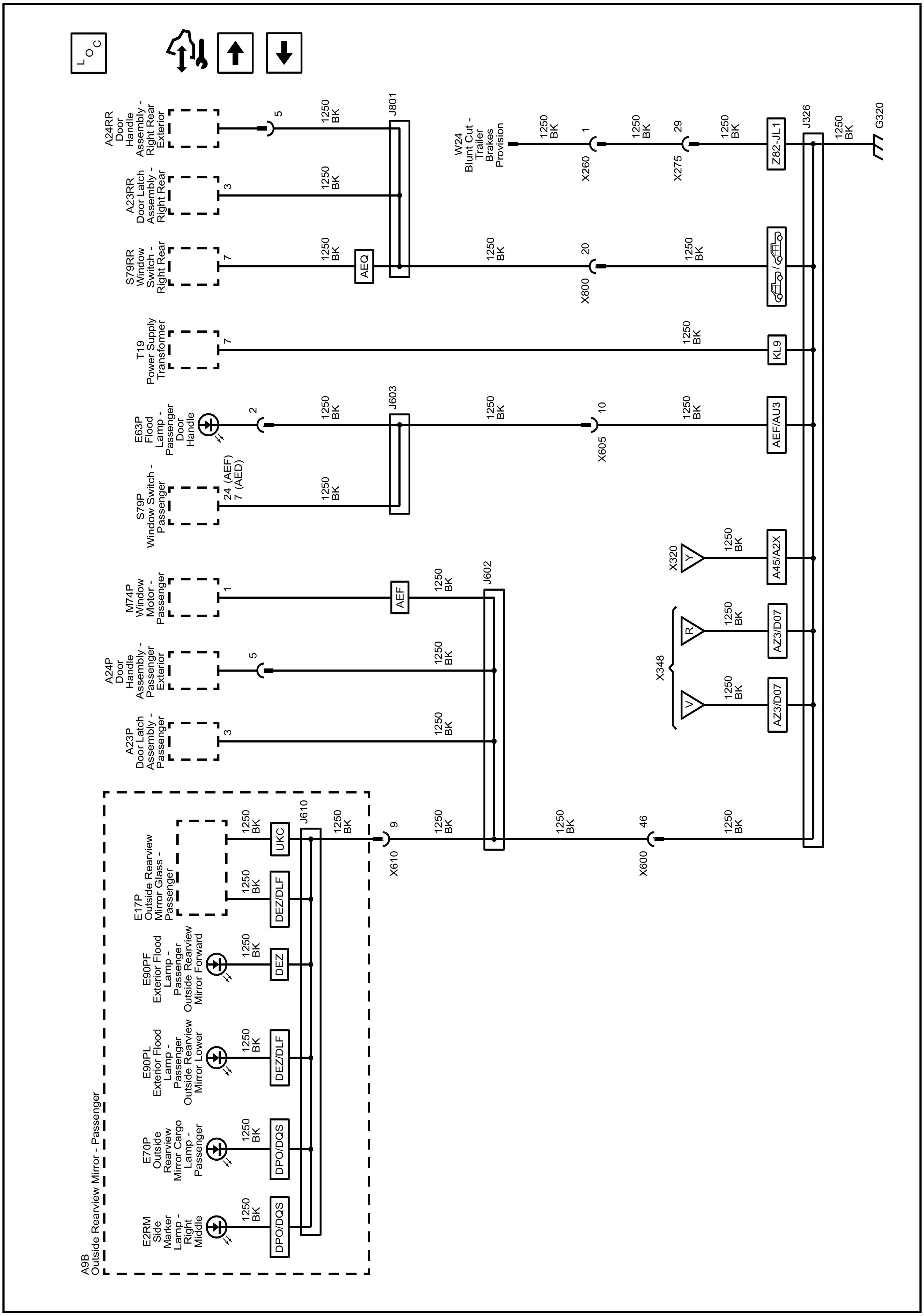

A9A
Outside Rearview Mirror - Driver
E2LM Side Marker Lamp - Left Middle
E70D Outside Rearview Mirror Cargo Lamp - Driver
E90DF Exterior Flood Lamp - Driver Outside Rearview Mirror Forward
E90DL Exterior Flood Lamp - Driver Outside Rearview Mirror Lower
E17D Outside Rearview Mirror Glass - Driver
X2
A
1150 BK
DPO/DQS
DPO/DQS
DEZ/DLF
DEZ
DEZ/DLF
UKC
J510
X510
9
A23D Door Latch Assembly - Driver
A24D Door Handle Assembly - Driver Exterior
M74D Window Motor - Driver
S13D Door Lock Switch - Driver
S146 Window/ Outside Rearview Mirror Switch - Driver
E63D Flood Lamp - Driver Door Handle
3
5
1
4
24
2
J503
X505
30
AXG
AXG/AU3
J502
Z
X500

5299357

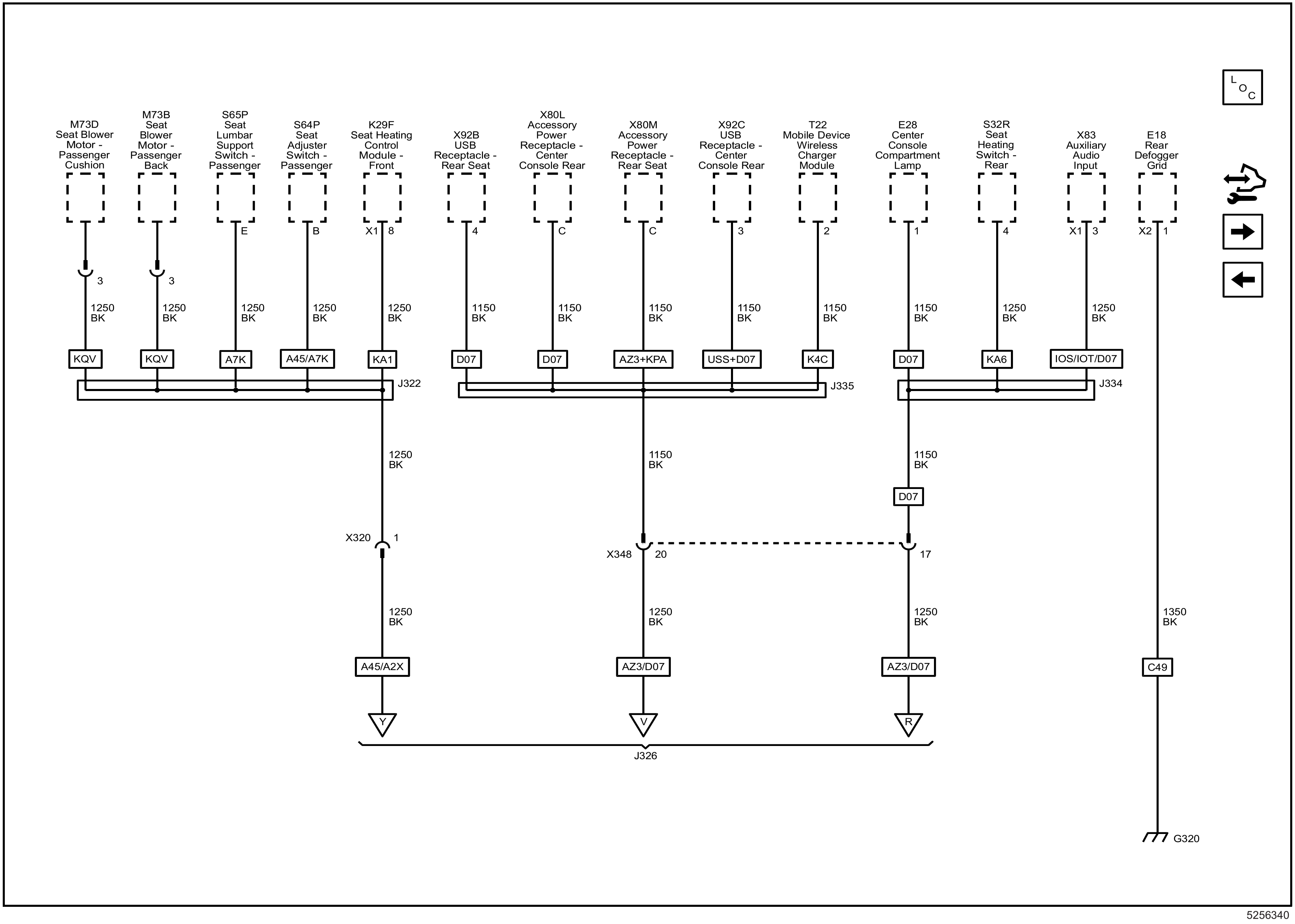
Ground Distribution Schematics (G308, G312, G400, and G420)


5256336
K4 Assist Step Control Module
X1 2
2150 BK
BRS
G420
X80C Accessory Power Receptacle - Cargo
5
6650 BK
6
X450
6650 BK
KC9/KCA
G400
K157 Video Processing Control Module
X1 3
X1 12
2751 BK/WH
UVI/UVS
J282
T3 Audio Amplifier
X1 8
UQA
P17 Info Display Module
X1 8
IOS/IOT/(IOR+UIJ)
J233
A11 Radio
X1 6
X1 3
45
K73 Telematics Communication Interface Control Module
X1 4
X1 8
J231
31
X275
UE1
G312
K85 Passenger Presence Module
4
2551 BK/WH
26
X320
AL0
K36 Inflatable Restraint Sensing and Diagnostic Module
X1 19
G308

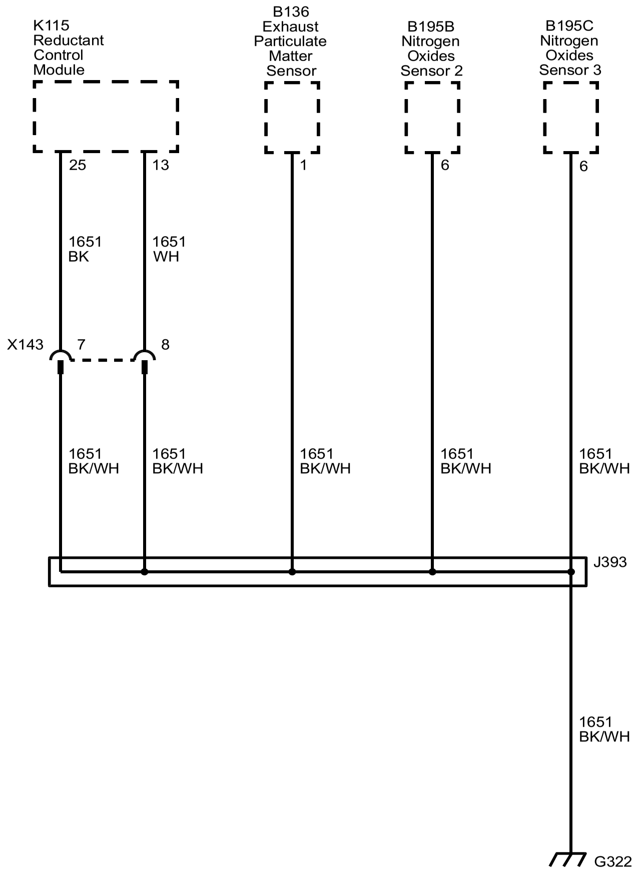
Ground Distribution Schematics (G320 (1 of 2))


5256337
L O C
A24RR Door Handle Assembly - Right Rear Exterior
5
1250 BK
J801
A23RR Door Latch Assembly - Right Rear
3
1250 BK
S79RR Window Switch - Right Rear
7
1250 BK
AEQ
1250 BK
20
X800
1250 BK
W24 Blunt Cut - Trailer Brakes Provision
1250 BK
1
X260
1250 BK
29
X275
1250 BK
Z82-JL1
J326
1250 BK
G320
T19 Power Supply Transformer
7
1250 BK
KL9
E63P Flood Lamp - Passenger Door Handle
2
1250 BK
J603
1250 BK
10
X605
1250 BK
AEF/AU3
S79P Window Switch - Passenger
24 (AEF)
7 (AED)
1250 BK
X320
Y
1250 BK
A45/A2X
M74P Window Motor - Passenger
1
AEF
1250 BK
J602
R
1250 BK
AZ3/D07
X348
A24P Door Handle Assembly - Passenger Exterior
5
1250 BK
V
1250 BK
AZ3/D07
A23P Door Latch Assembly - Passenger
3
1250 BK
A9B Outside Rearview Mirror - Passenger
E17P Outside Rearview Mirror Glass - Passenger
1250 BK
UKC
J610
1250 BK
9
X610
1250 BK
1250 BK
46
X600
1250 BK
1250 BK
DEZ/DLF
E90PF Exterior Flood Lamp - Passenger Outside Rearview Mirror Forward
1250 BK
DEZ
E90PL Exterior Flood Lamp - Passenger Outside Rearview Mirror Lower
1250 BK
DEZ/DLF
E70P Outside Rearview Mirror Cargo Lamp - Passenger
1250 BK
DPO/DQS
E2RM Side Marker Lamp - Right Middle
1250 BK
DPO/DQS

Ground Distribution Schematics (G320 (2 of 2))

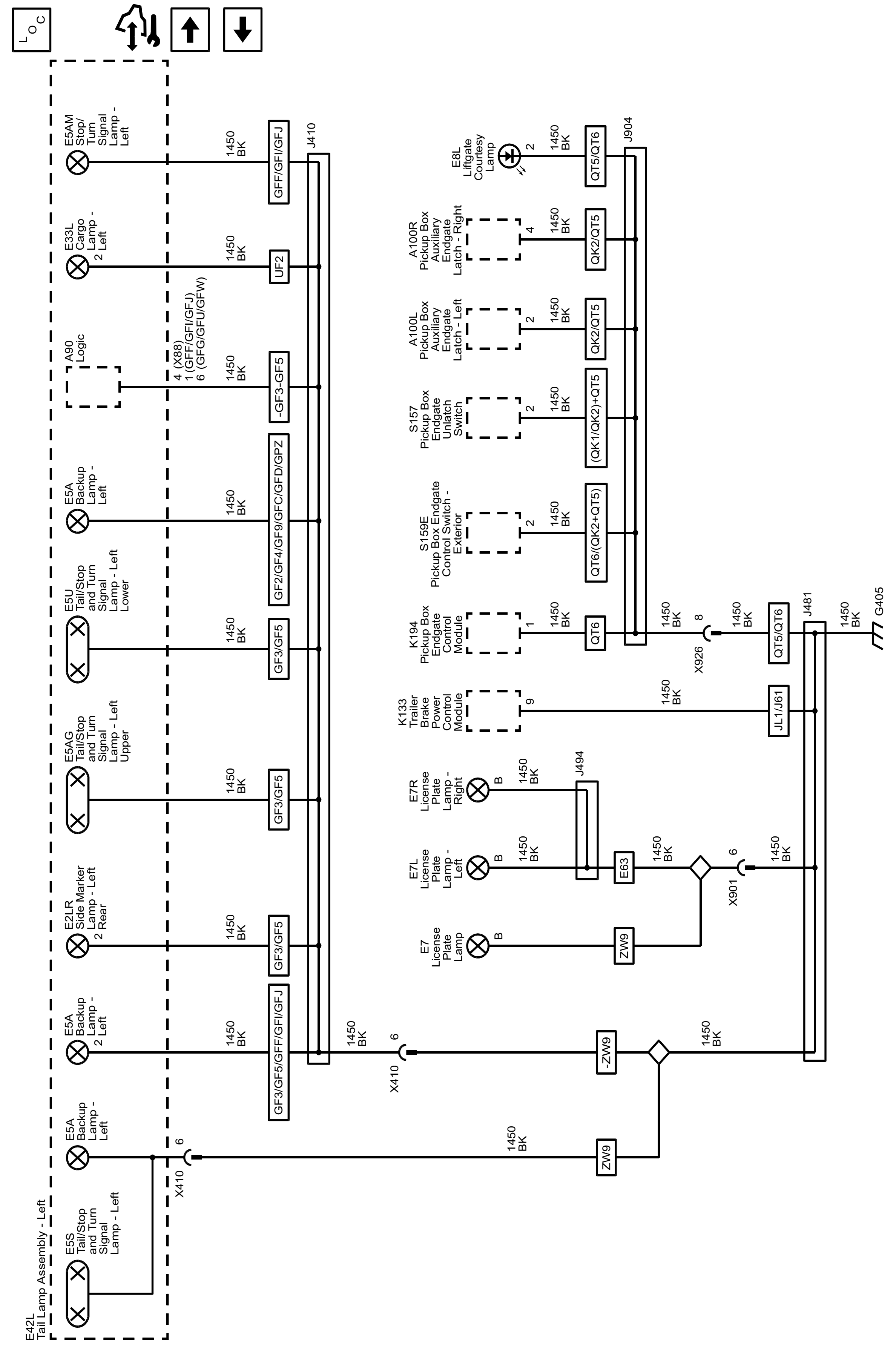

L O C
M73D Seat Blower Motor - Passenger Cushion
M73B Seat Blower Motor - Passenger Back
S65P Seat Lumbar Support Switch - Passenger
S64P Seat Adjuster Switch - Passenger
K29F Seat Heating Control Module - Front
X92B USB Receptacle - Rear Seat
X80L Accessory Power Receptacle - Center Console Rear
X80M Accessory Power Receptacle - Rear Seat
X92C USB Receptacle - Center Console Rear
T22 Mobile Device Wireless Charger Module
E28 Center Console Compartment Lamp
S32R Seat Heating Switch - Rear
X83 Auxiliary Audio Input
E18 Rear Defogger Grid
3
3
E
B
X1 8
4
C
C
3
2
1
4
X1 3
X2 1
1250 BK
1150 BK
1350 BK
KQV
KQV
A7K
A45/A7K
KA1
D07
D07
AZ3+KPA
USS+D07
K4C
D07
KA6
IOS/IOT/D07
J322
J335
J334
D07
X320 1
X348 20
17
A45/A2X
AZ3/D07
AZ3/D07
C49
Y
V
R
J326
G320
5256340

Ground Distribution Schematics (G322 (LM2))

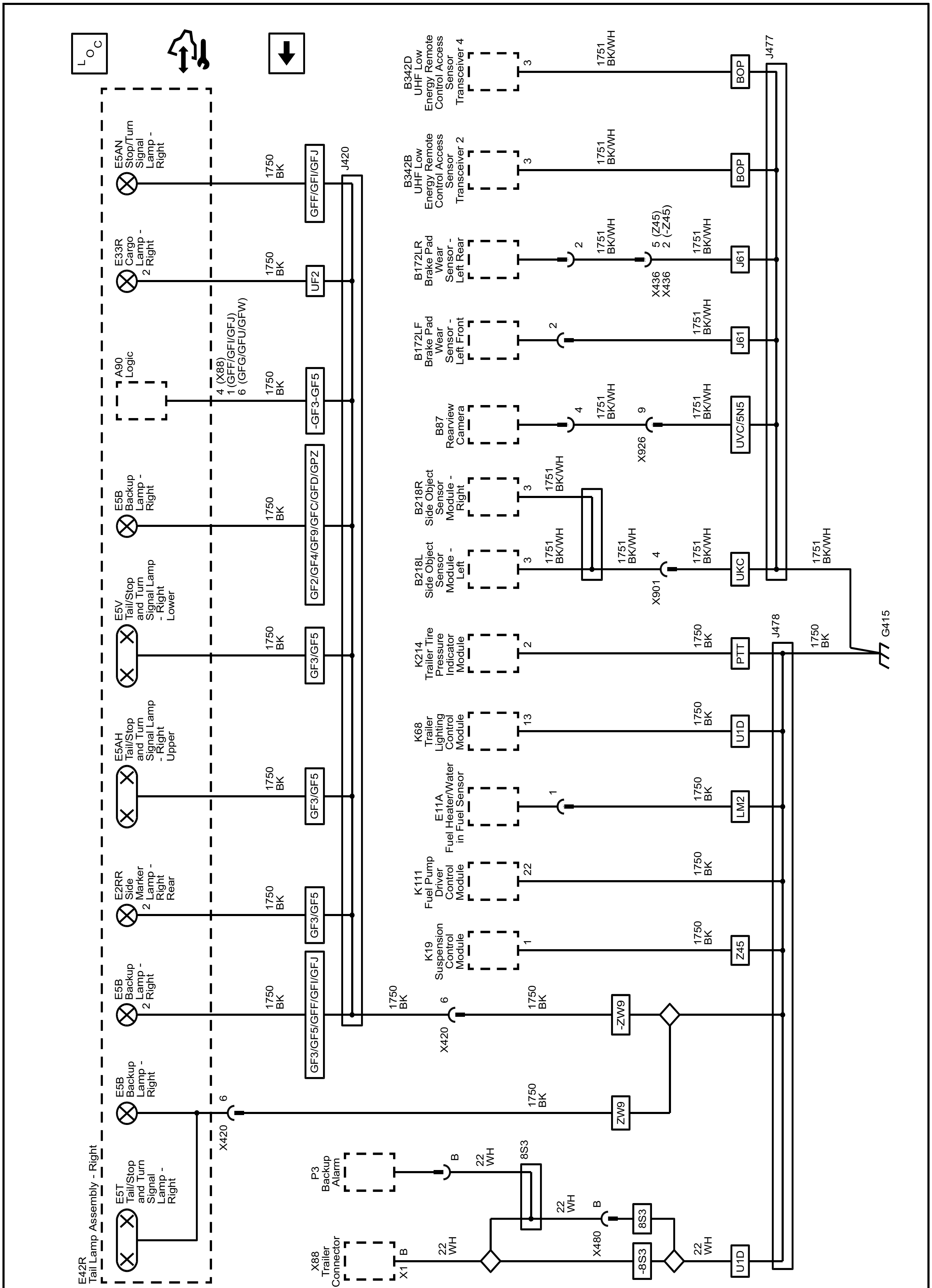

K115
Reductant
Control
Module
B136
Exhaust
Particulate
Matter
Sensor
B195B
Nitrogen
Oxides
Sensor 2
B195C
Nitrogen
Oxides
Sensor 3
25
13
1
6
6
1651
BK
1651
WH
X143
7
8
1651
BK/WH
1651
BK/WH
1651
BK/WH
1651
BK/WH
1651
BK/WH
J393
1651
BK/WH
G322

5256342

Ground Distribution Schematics (G405)


5256343
LOC
E42L
Tail Lamp Assembly - Left
E5S
Tail/Stop and Turn Signal Lamp - Left
E5A
Backup Lamp - Left
6
X410
E5A
Backup Lamp - 2 Left
E2LR
Side Marker Lamp - Left 2 Rear
E5AG
Tail/Stop and Turn Signal Lamp - Left Upper
E5U
Tail/Stop and Turn Signal Lamp - Left Lower
E5A
Backup Lamp - Left
A90
Logic
4 (X88)
1 (GFF/GFI/GFJ)
6 (GFG/GFU/GFW)
E33L
Cargo Lamp - 2 Left
E5AM
Stop/ Turn Signal Lamp - Left
1450
BK
GF3/GF5/GFF/GFI/GFJ
GF3/GF5
GF3/GF5
GF3/GF5
GF2/GF4/GF9/GFC/GFD/GPZ
-GF3-GF5
UF2
GFF/GFI/GFJ
J410
6
X410
ZW9
-ZW9
E7
License Plate Lamp
B
E7L
License Plate Lamp - Left
E7R
License Plate Lamp - Right
J494
E63
6
X901
K133
Trailer Brake Power Control Module
9
JL1/J61
K194
Pickup Box Endgate Control Module
1
QT6
8
X926
QT5/QT6
J481
G405
S159E
Pickup Box Endgate Control Switch - Exterior
2
QT6/(QK2+QT5)
S157
Pickup Box Endgate Unlatch Switch
2
(QK1/QK2)+QT5
A100L
Pickup Box Auxiliary Endgate Latch - Left
2
QK2/QT5
A100R
Pickup Box Auxiliary Endgate Latch - Right
4
QK2/QT5
E8L
Liftgate Courtesy Lamp
2
QT5/QT6
J904

Ground Distribution Schematics (G415)

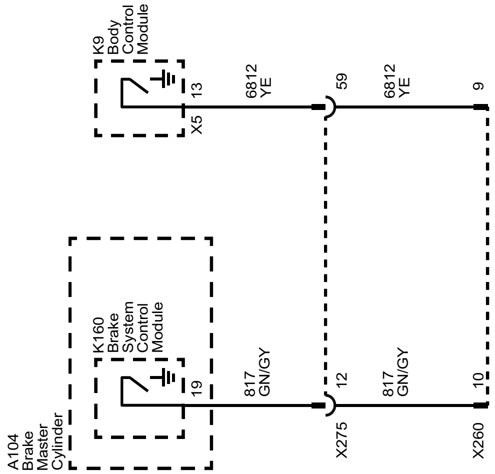


LOC
E5AN Stop/Turn Signal Lamp - Right
E33R Cargo Lamp - 2 Right
A90 Logic
E5B Backup Lamp - Right
E5V Tail/Stop and Turn Signal Lamp - Right Lower
E5AH Tail/Stop and Turn Signal Lamp - Right Upper
E2RR Side Marker 2 Lamp - Right Rear
E5B Backup Lamp - 2 Right
E5B Backup Lamp - Right
E5T Tail/Stop and Turn Signal Lamp - Right
E42R Tail Lamp Assembly - Right
4 (X88)
1 (GFF/GFI/GFJ)
6 (GFG/GFU/GFW)
1750 BK
GFF/GFI/GFJ
UF2
-GF3-GF5
GF2/GF4/GF9/GFC/GFD/GPZ
GF3/GF5
GF3/GF5
GF3/GF5
GF3/GF5/GFF/GFI/GFJ
J420
6
X420
-ZW9
ZW9
B342D UHF Low Energy Remote Control Access Sensor Transceiver 4
B342B UHF Low Energy Remote Control Access Sensor Transceiver 2
B172LR Brake Pad Wear Sensor - Left Rear
B172LF Brake Pad Wear Sensor - Left Front
B87 Rearview Camera
B218R Side Object Sensor Module - Right
B218L Side Object Sensor Module - Left
K214 Trailer Tire Pressure Indicator Module
K68 Trailer Lighting Control Module
E11A Fuel Heater/Water in Fuel Sensor
K111 Fuel Pump Driver Control Module
K19 Suspension Control Module
3
2
4
9
5 (Z45)
2 (-Z45)
X436
X436
X926
X901
13
1
22
1751 BK/WH
BOP
BOP
J61
J61
UVC/5N5
UKC
PTT
U1D
LM2
Z45
J477
J478
G415
P3 Backup Alarm
X88 Trailer Connector
X1
B
22 WH
8S3
-8S3
X480
U1D

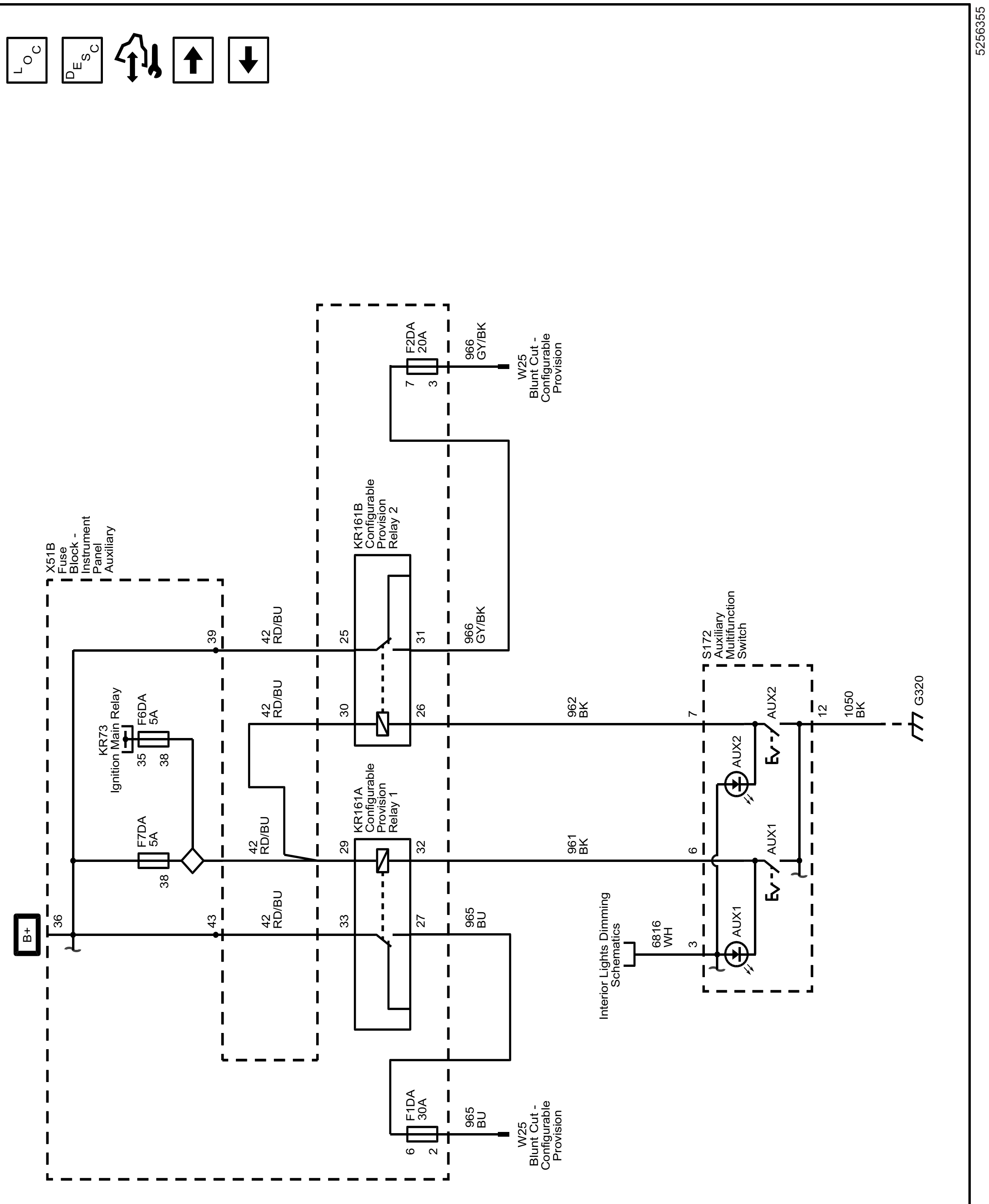
5256345

Upfitter Provision Schematics (Upfitter Provisions - Signals)

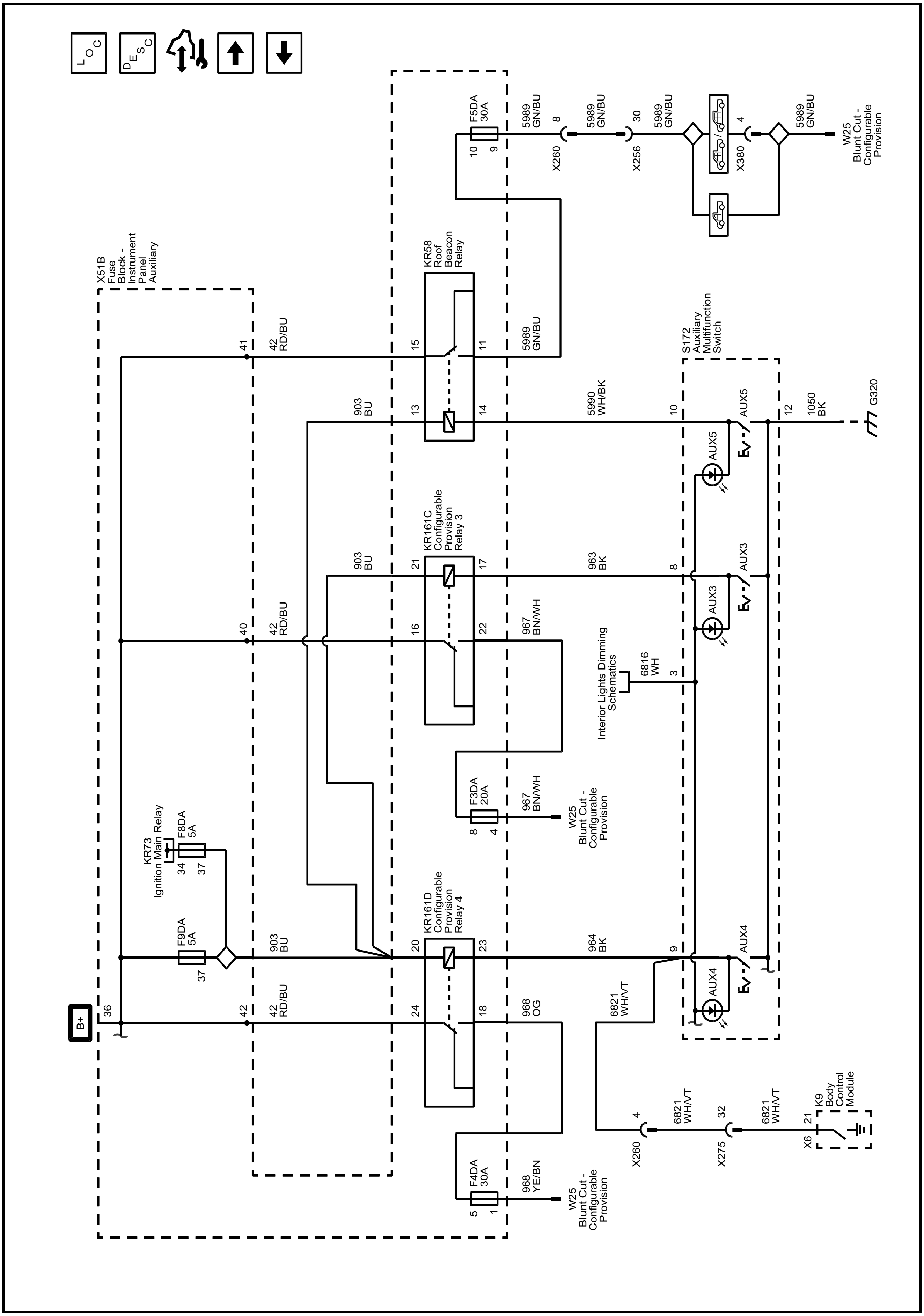
5256352


K9
Body
Control
Module
X5 13
6812
YE
59
6812
YE
9
A104
Brake
Master
Cylinder
K160
Brake
System
Control
Module
19
817
GN/GY
12
817
GN/GY
10
X275
X260

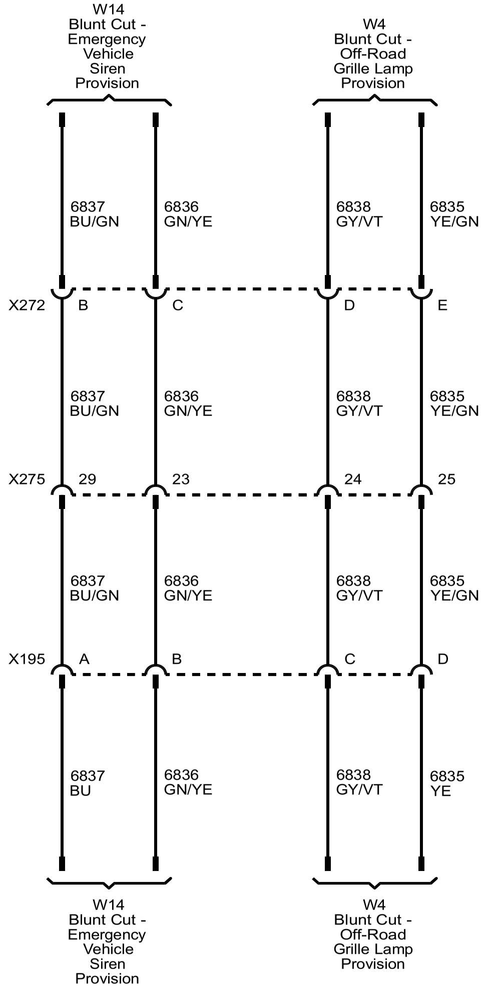
Upfitter Provision Schematics (Upfitter Provisions - 1 of 2 (9L7))


LOC
DESC
5256355
B+
36
X51B Fuse Block - Instrument Panel Auxiliary
39
43
F7DA 5A
38
KR73 Ignition Main Relay
F6DA 5A
35
38
42 RD/BU
42 RD/BU
42 RD/BU
42 RD/BU
KR161B Configurable Provision Relay 2
25
31
30
26
KR161A Configurable Provision Relay 1
29
32
33
27
F2DA 20A
7
3
966 GY/BK
966 GY/BK
W25 Blunt Cut - Configurable Provision
F1DA 30A
6
2
965 BU
965 BU
W25 Blunt Cut - Configurable Provision
962 BK
961 BK
S172 Auxiliary Multifunction Switch
7
6
3
12
AUX2
AUX2
AUX1
AUX1
1050 BK
G320
Interior Lights Dimming Schematics
6816 WH

Upfitter Provision Schematics (Upfitter Provisions - 2 of 2 (9L7))

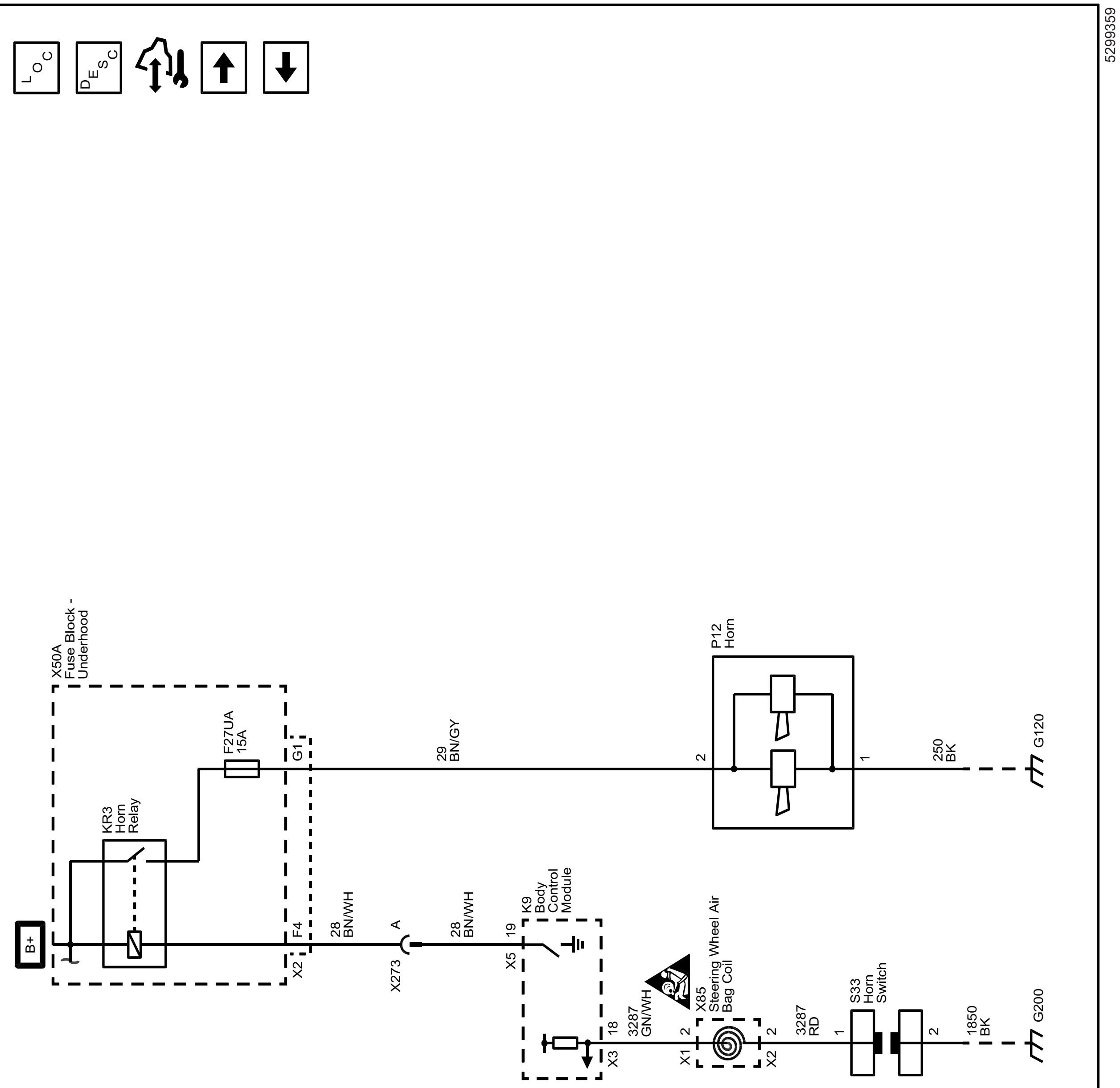

5256363
L O C
D E S C
B+
36
X51B Fuse Block - Instrument Panel Auxiliary
41
42 RD/BU
40
42 RD/BU
42
42 RD/BU
F9DA 5A
37
KR73 Ignition Main Relay
34
37
F8DA 5A
903 BU
903 BU
903 BU
KR58 Roof Beacon Relay
15
11
13
14
5989 GN/BU
5990 WH/BK
KR161C Configurable Provision Relay 3
21
17
16
22
963 BK
967 BN/WH
KR161D Configurable Provision Relay 4
20
23
24
18
964 BK
968 OG
F5DA 30A
10
9
5989 GN/BU
8
X260
5989 GN/BU
30
X256
5989 GN/BU
4
X380
5989 GN/BU
W25 Blunt Cut - Configurable Provision
F3DA 20A
8
4
967 BN/WH
W25 Blunt Cut - Configurable Provision
F4DA 30A
5
1
968 YE/BN
W25 Blunt Cut - Configurable Provision
S172 Auxiliary Multifunction Switch
10
AUX5
AUX5
12
1050 BK
G320
8
AUX3
AUX3
Interior Lights Dimming Schematics
6816 WH
3
9
AUX4
AUX4
6821 WH/VT
4
X260
6821 WH/VT
32
X275
6821 WH/VT
21
X6
K9 Body Control Module

Upfitter Provision Schematics (Grille Lights and Siren Provisions (6J3))

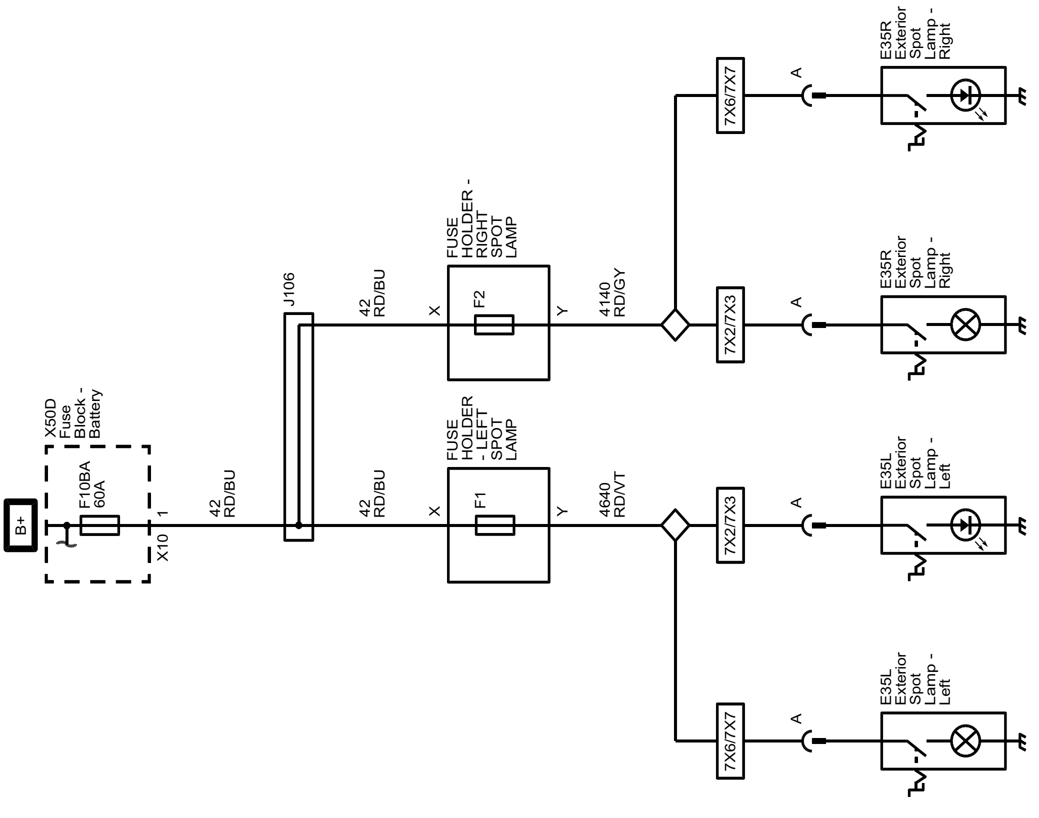

W14
Blunt Cut - Emergency Vehicle Siren Provision
W4
Blunt Cut - Off-Road Grille Lamp Provision
6837
BU/GN
6836
GN/YE
6838
GY/VT
6835
YE/GN
X272
B
C
D
E
6837
BU/GN
6836
GN/YE
6838
GY/VT
6835
YE/GN
X275
29
23
24
25
6837
BU/GN
6836
GN/YE
6838
GY/VT
6835
YE/GN
X195
A
B
C
D
6837
BU
6836
GN/YE
6838
GY/VT
6835
YE
W14
Blunt Cut - Emergency Vehicle Siren Provision
W4
Blunt Cut - Off-Road Grille Lamp Provision

5299358

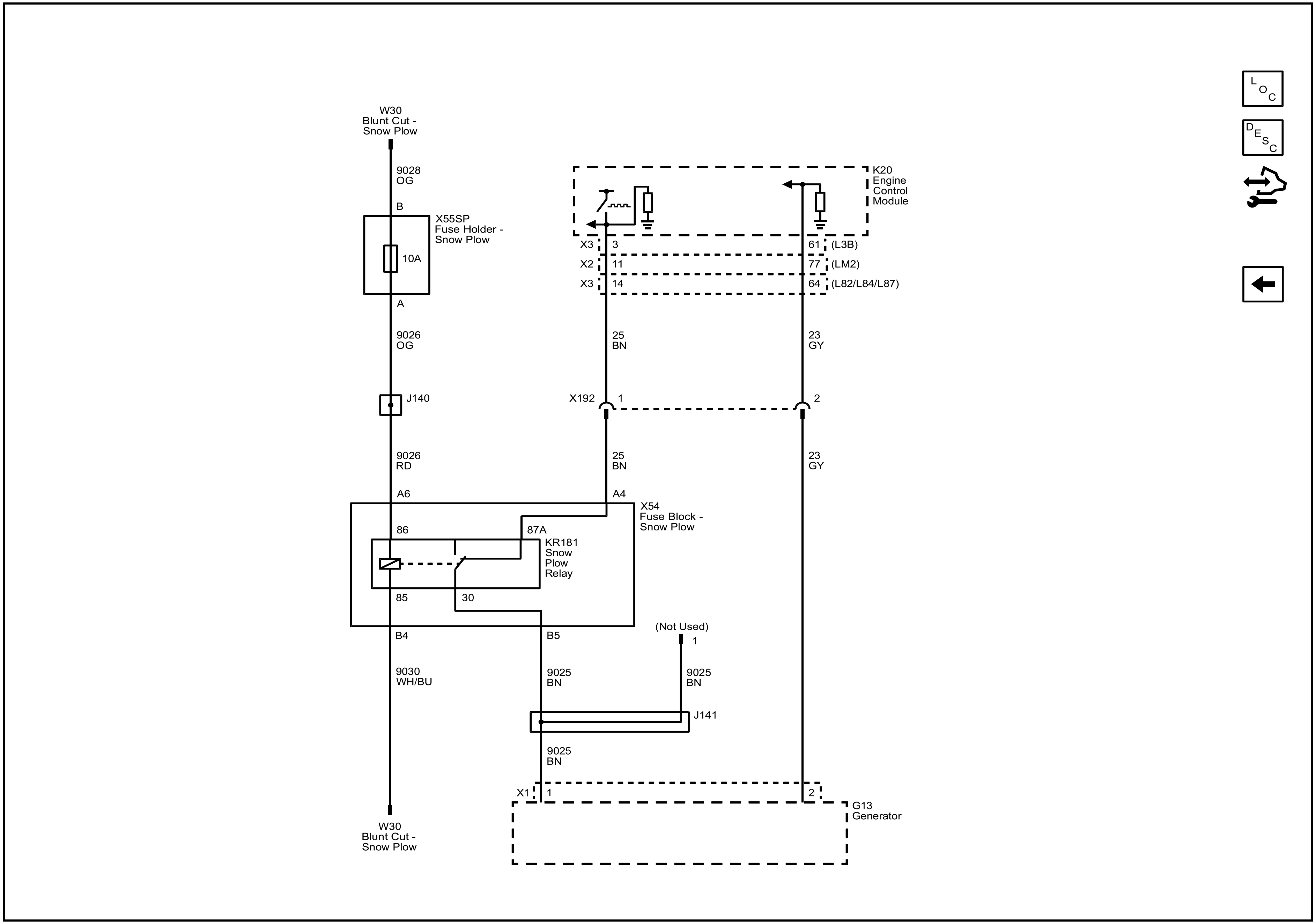
Upfitter Provision Schematics (Horn Provision (6J4))


5299359
LOC
DESC
B+
X50A
Fuse Block - Underhood
KR3
Horn
Relay
F27UA
15A
G1
F4
X2
29
BN/GY
28
BN/WH
A
X273
28
BN/WH
K9
Body
Control
Module
19
X5
18
X3
3287
GN/WH
2
X1
X85
Steering Wheel Air Bag Coil
2
X2
3287
RD
1
S33
Horn
Switch
2
1850
BK
G200
P12
Horn
2
1
250
BK
G120

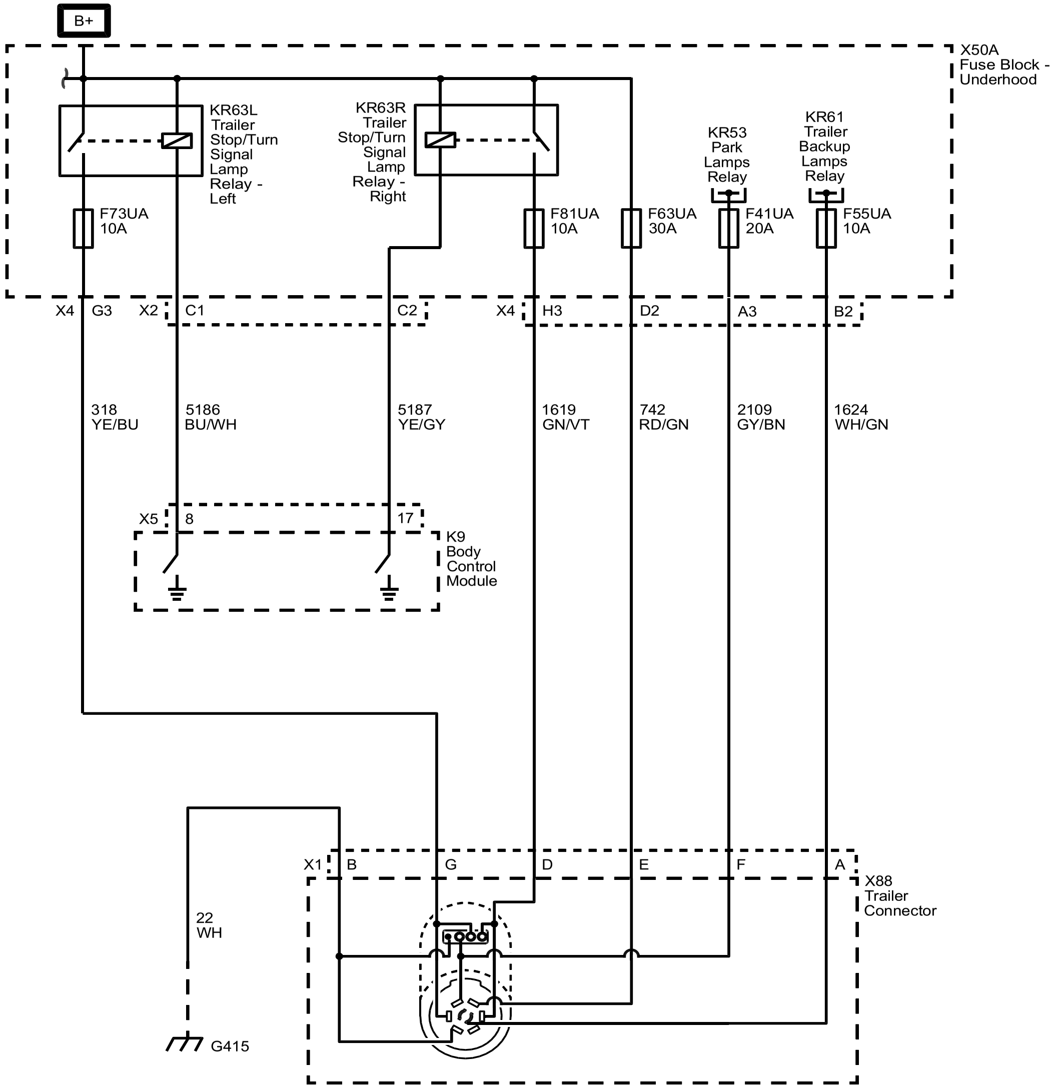
Upfitter Provision Schematics (Spot Lamps (7X2/7X3/7X6/7X7))


B+
X50D Fuse Block - Battery
F10BA 60A
X10 1
42 RD/BU
J106
42 RD/BU
X
F1
Y
FUSE HOLDER - LEFT SPOT LAMP
4640 RD/VT
42 RD/BU
X
F2
Y
FUSE HOLDER - RIGHT SPOT LAMP
4140 RD/GY
7X6/7X7
7X2/7X3
7X2/7X3
7X6/7X7
A
A
A
A
E35L Exterior Spot Lamp - Left
E35L Exterior Spot Lamp - Left
E35R Exterior Spot Lamp - Right
E35R Exterior Spot Lamp - Right
5299360

Upfitter Provision Schematics (Snow Plow Provisions (VYU))

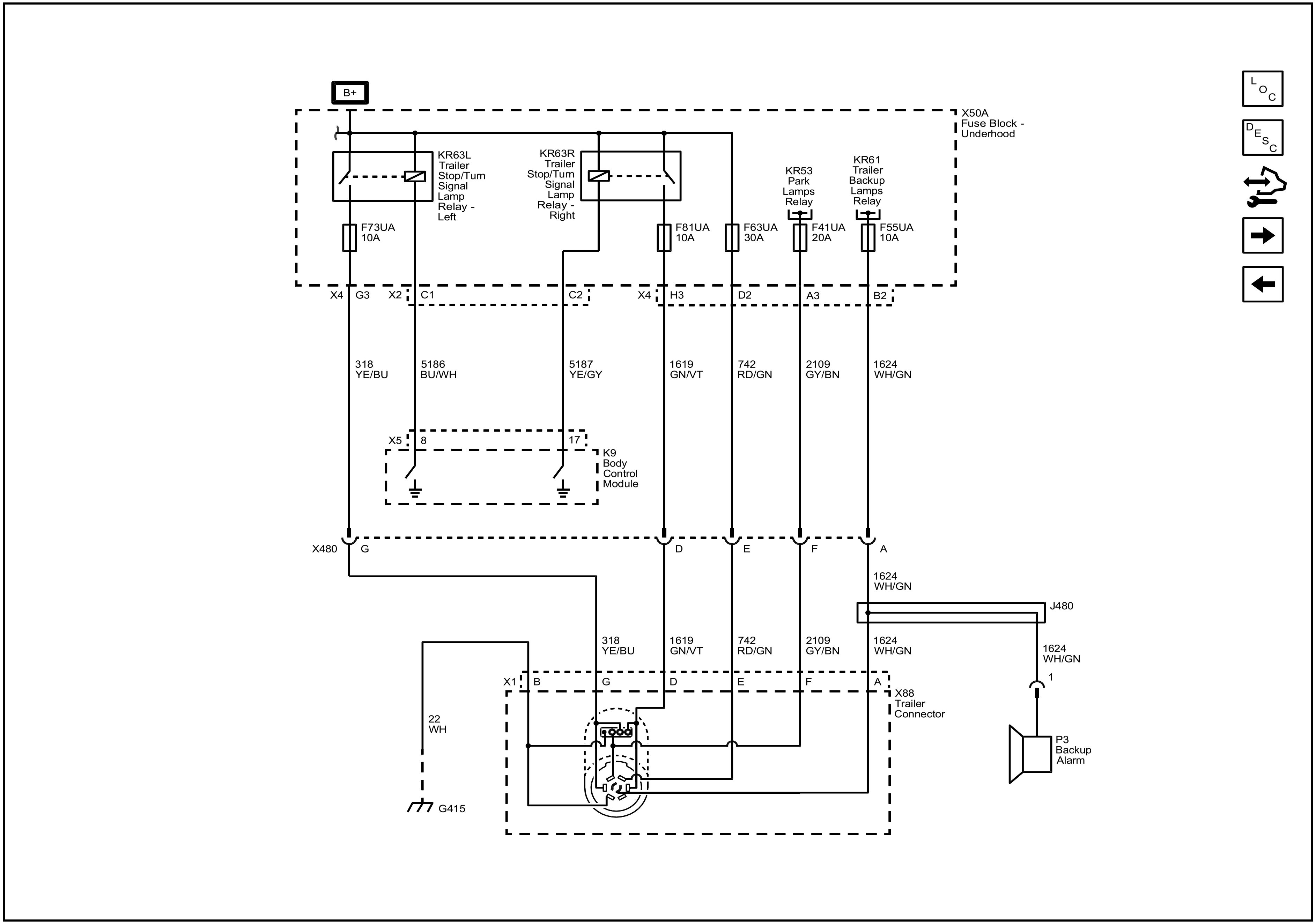

W30
Blunt Cut - Snow Plow
9028
OG
B
X55SP
Fuse Holder - Snow Plow
10A
A
9026
OG
J140
9026
RD
A6
86
87A
KR181
Snow
Plow
Relay
85
30
B4
9030
WH/BU
W30
Blunt Cut - Snow Plow
K20
Engine
Control
Module
X3
3
X2
11
X3
14
61
(L3B)
77
(LM2)
64
(L82/L84/L87)
25
BN
23
GY
X192
1
2
25
BN
23
GY
A4
X54
Fuse Block - Snow Plow
B5
9025
BN
(Not Used)
1
9025
BN
J141
9025
BN
X1
1
2
G13
Generator
5300067

Trailer Connector/Provision Schematics (Trailer Connector Pins: A, B, D, E, F, G (Z82-U1D))


B+
X50A
Fuse Block -
Underhood
KR63L
Trailer
Stop/Turn
Signal
Lamp
Relay -
Left
KR63R
Trailer
Stop/Turn
Signal
Lamp
Relay -
Right
KR53
Park
Lamps
Relay
KR61
Trailer
Backup
Lamps
Relay
F73UA
10A
F81UA
10A
F63UA
30A
F41UA
20A
F55UA
10A
X4
G3
X2
C1
C2
X4
H3
D2
A3
B2
318
YE/BU
5186
BU/WH
5187
YE/GY
1619
GN/VT
742
RD/GN
2109
GY/BN
1624
WH/GN
X5
8
17
K9
Body
Control
Module
X1
B
G
D
E
F
A
X88
Trailer
Connector
22
WH
G415

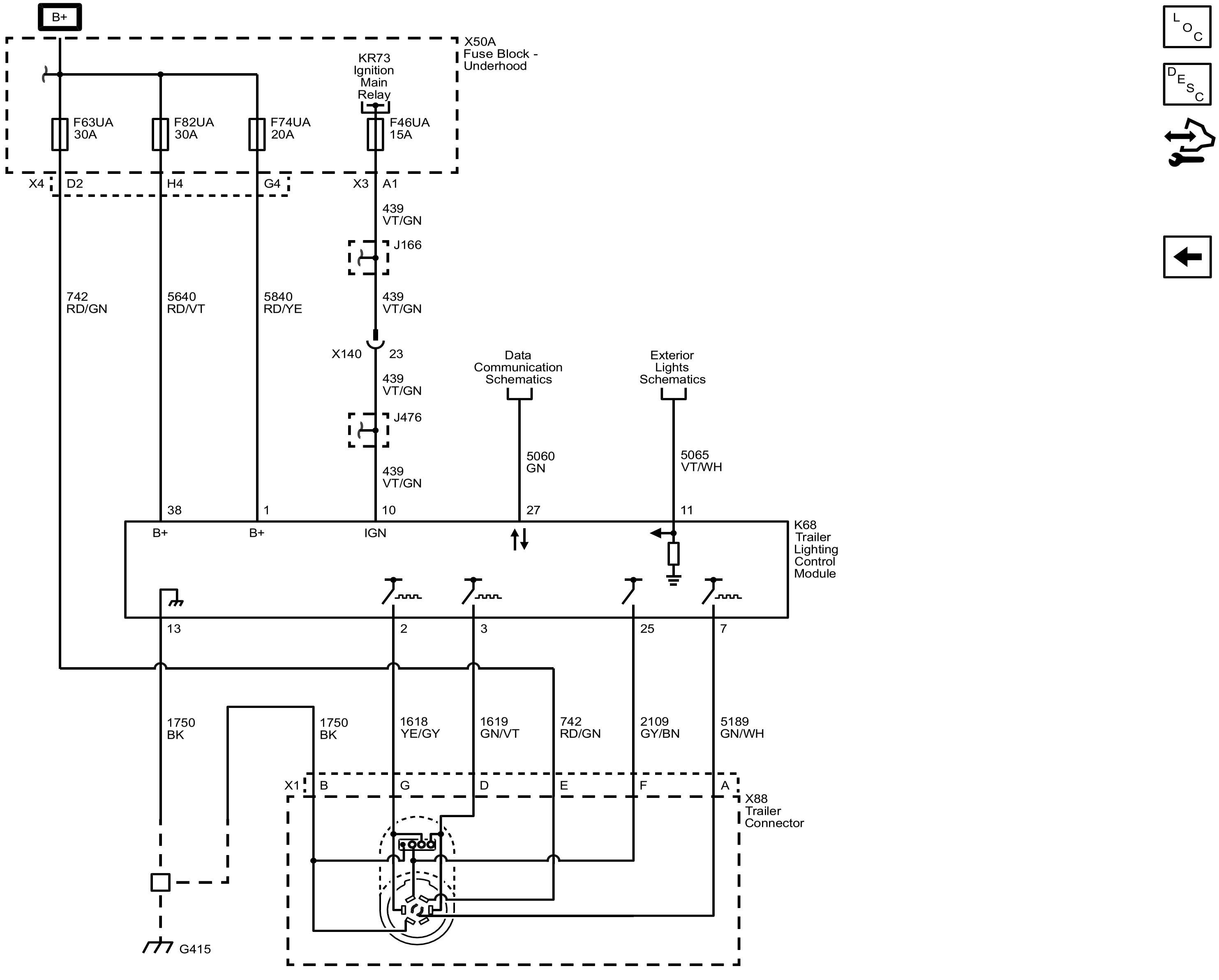
5256366

Trailer Connector/Provision Schematics (Trailer Connector Pins: A, B, D, E, F, G (8S3-U1D))


B+
X50A
Fuse Block - Underhood
KR63L
Trailer Stop/Turn Signal Lamp Relay - Left
KR63R
Trailer Stop/Turn Signal Lamp Relay - Right
KR53
Park Lamps Relay
KR61
Trailer Backup Lamps Relay
F73UA
10A
F81UA
10A
F63UA
30A
F41UA
20A
F55UA
10A
X4
G3
X2
C1
C2
X4
H3
D2
A3
B2
318
YE/BU
5186
BU/WH
5187
YE/GY
1619
GN/VT
742
RD/GN
2109
GY/BN
1624
WH/GN
X5
8
17
K9
Body Control Module
X480
G
D
E
F
A
1624
WH/GN
J480
318
YE/BU
1619
GN/VT
742
RD/GN
2109
GY/BN
1624
WH/GN
1624
WH/GN
1
X1
B
G
D
E
F
A
X88
Trailer Connector
22
WH
G415
P3
Backup Alarm

5299361

Trailer Connector/Provision Schematics (Trailer Connector Pins: A, B, D, E, F, G (U1D))


B+
X50A
Fuse Block -
Underhood
KR73
Ignition
Main
Relay
F63UA
30A
F82UA
30A
F74UA
20A
F46UA
15A
X4
D2
H4
G4
X3
A1
439
VT/GN
J166
742
RD/GN
5640
RD/VT
5840
RD/YE
X140
23
Data
Communication
Schematics
Exterior
Lights
Schematics
J476
5060
GN
5065
VT/WH
38
1
10
27
11
B+
B+
IGN
K68
Trailer
Lighting
Control
Module
13
2
3
25
7
1750
BK
1618
YE/GY
1619
GN/VT
2109
GY/BN
5189
GN/WH
X1
B
G
D
E
F
A
X88
Trailer
Connector
G415

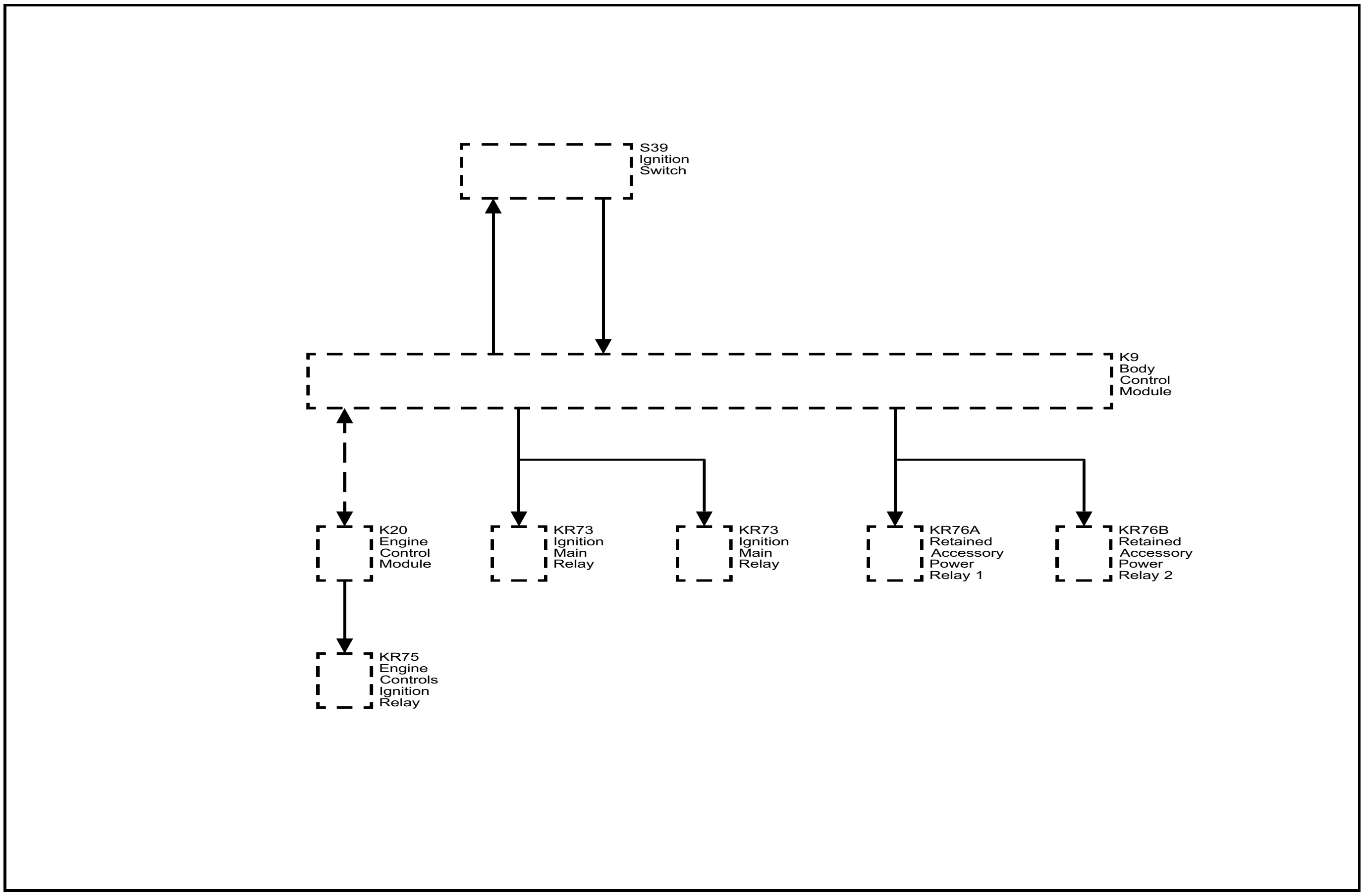
5256370

Description and Operation

Power Mode Description and Operation (Without BTM and/or ATH/ATS)

Serial Data Power Mode Master

Power Moding Description and Operation Block Diagram


S39
Ignition
Switch
K9
Body
Control
Module
K20
Engine
Control
Module
KR73
Ignition
Main
Relay
KR73
Ignition
Main
Relay
KR76A
Retained
Accessory
Power
Relay 1
KR76B
Retained
Accessory
Power
Relay 2
KR75
Engine
Controls
Ignition
Relay

3282831

Power to many of this vehicles circuits is controlled by the module that is designated the power mode master. This vehicles power mode master is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle’s body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is useful to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition switch is a low current switch with multiple discrete ignition switch signals to the power mode master for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The power mode master will also activate relays and other direct outputs of the power mode master as needed. The power mode master determines which power mode (Off, Accessory, Run, Crank Request) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the power mode serial data message does not match what the individual module can see from its own connections.

The power mode master receives ignition switch signals to identify the operators desired power mode. The Power Mode Parameter tables below illustrate the correct state of these input parameters (circuits) in correspondence to the ignition switch position:

Power Mode Parameters

Ignition Switch Position	Power Mode Transmitted	Ign. Off/Run/Crank (Off/Run Crank Voltage Circuit)	Ignition Accessory/Run (Accessory Voltage Circuit)	Ignition Run/Crank (Ignition 1 Voltage Circuit)
Off Key Out	Off	Key Out / ACC	Inactive	Inactive
Off Key IN	Off	Key In / Off	Inactive	Inactive
Accessory	Accessory	Key Out / ACC	Active	Inactive
Run	Run	Run	Active	Active
Start	Crank Request	Crank	Inactive	Active

Relay Controlled Power Mode

The BCM uses the discrete ignition switch inputs Off/Run/Crank Voltage, Accessory Voltage, and Ignition 1 Voltage, to distinguish the correct power mode. The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The retained accessory power relay 1 and retained accessory power relay 2 remain on for a timed period after the Ignition key is removed. Refer to *Retained Accessory Power Description and Operation on page 7-755* for more information on the retained accessory power function.

Battery Saver Mode (Transport Mode)

Battery saver mode (transport mode) reduces the parasitic load of some modules during overseas shipment or during vehicle storage conditions. This improves the drain time on the battery (up to 70 days without the battery going dead). When a vehicle is in transport/storage, some features may have reduced functionality while in the battery saver mode, such as disabling keyless entry, afterblow, and content theft features. Battery saver mode is initiated by turning on the hazard flashers, applying the brake pedal, and then turning the ignition key to the start position or pushing the ignition mode switch with the foot on the brake for greater than 15 seconds. The mode is disengaged by repeating the previous process. The driver information center (if equipped) will display Transport Mode is On when battery saver mode is enabled and Transport Mode is Off when battery saver mode is disabled. For vehicles not equipped with a driver information center, the battery indicator light will constantly flash on the Instrument Cluster when battery saver mode is enabled. This feature can be used as many times as necessary if the vehicle is to be stored for an extended period of time.

BCM Awake/Sleep States

The BCM is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

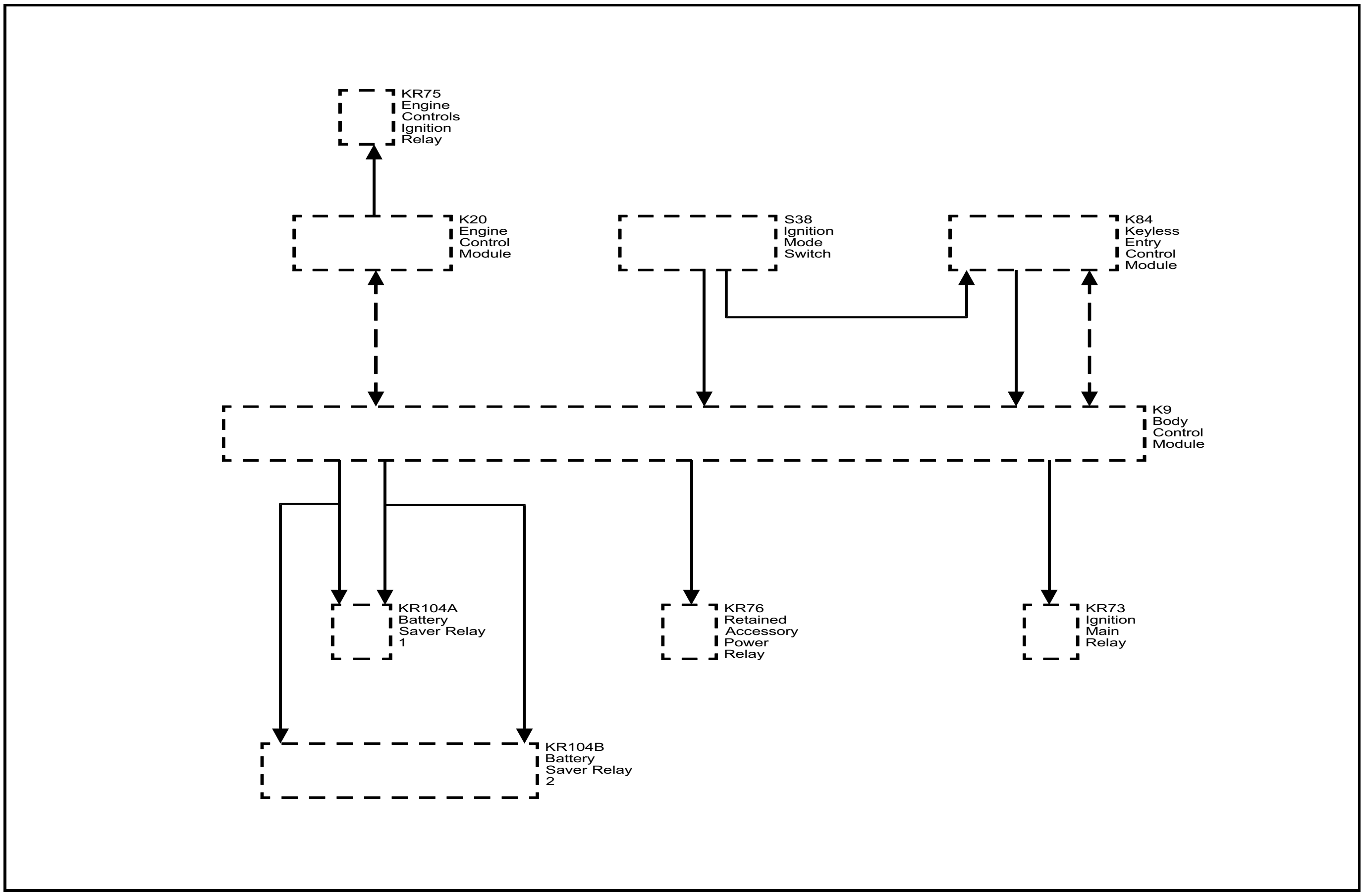
The BCM will enter a sleep state when all of the following conditions exist:

- The ignition switch is OFF, key out.
- Ignition OFF, transmitter is out of range
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

Power Mode Description and Operation (BTM and/or ATH/ATS)

Power Moding D&O Block Diagram


KR75
Engine
Controls
Ignition
Relay
K20
Engine
Control
Module
S38
Ignition
Mode
Switch
K84
Keyless
Entry
Control
Module
K9
Body
Control
Module
KR104A
Battery
Saver Relay
1
KR76
Retained
Accessory
Power
Relay
KR73
Ignition
Main
Relay
KR104B
Battery
Saver Relay
2

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Serial Data Power Mode Master

Power to many of this vehicles circuits is controlled by the module that is designated the power mode master. This vehicles power mode master is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle's body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is useful to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition mode switch is a low current switch with a discrete ignition signal to the power mode master for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The power mode master will also activate relays and other direct outputs of the power mode master as needed. The power mode master determines which power mode (Off, Accessory, Run/Start) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the power mode serial data message does not match what the individual module can see from its own connections.

The power mode master receives ignition mode switch signals to identify the operators desired power mode. The Power Mode Parameter table below illustrates the correct state of these input parameters in correspondence to the ignition mode switch with the transmitter to vehicle range:

Power Mode Parameters

Power Mode	Power Mode Transmitted	Push Button Ignition Switch (Power Button Switch Circuit Input to the BCM)	Push Button Ignition Switch Voltage Push Button Ignition Switch Voltage Input to the BCM	Key in Cylinder Switch/Key Fob in Vehicle (Transmitter in Range to the BCM Signal)
Transmitter in Range	Off	Inactive	9 V	Yes
Transmitter out of Range	Off	Inactive	9 V	No
Vehicle On Power Mode, then Press the Power Button Switch (Foot on or off the Brake Pedal) Transmitter in Vehicle	Off	Active (pushed) / Inactive (not pushed)	1.2–2.9 V (Pressed) 3.34–4.26 V (Released)	Yes
Vehicle Off Power Mode, then Press the Power Button Switch with foot off the Brake Pedal; Transmitter in Vehicle	Accessory Mode	Active (pushed) / Inactive (not pushed)	1.2–2.9 V (Pressed) 3.34–4.26 V (Released)	Yes
Vehicle Off Power Mode, then Press the Power Button Switch with foot on the Brake Pedal; Transmitter in Vehicle	Vehicle in Run/Start Mode (Ignition ON engine running.)	Active (pushed) / Inactive (not pushed)	1.2–2.9 V (Pressed) 3.34–4.26 V (Released)	Yes
Vehicle OFF Power Mode, then Press and Hold the Power Button Switch for 5 s with foot OFF the Brake Pedal; Transmitter in Vehicle	Vehicle in Run/Start Mode (Ignition ON without the engine running)	Active (pushed) / Inactive (not pushed)	1.2–2.9 V (Pressed) 3.34–4.26 V (Released)	Yes
Vehicle OFF Power Mode, then Press and Hold the Power Button Switch for 10 s with foot OFF the Brake Pedal; Transmitter in Vehicle	Vehicle In Service Mode (Ignition ON without the engine running)	Active (pushed) / Inactive (not pushed)	1.2–2.9 V (Pressed) 3.34–4.26 V (Released)	Yes

Relay Controlled Power Mode

The BCM uses discrete push button switch inputs, transmitter in range status, current power mode state, and brake pedal position state to distinguish the correct power mode (Off, Accessory Mode, Vehicle in Run/ Start Mode). The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The retained accessory power relay remains on for a timed period after the Ignition key is removed. Refer to *Retained Accessory Power Description and Operation on page 7-755* for more information on the retained accessory power function.

Push Button Start

The S38 Ignition Mode Switch has two LEDs that indicate the vehicle power mode. When the vehicle is in the Off ignition mode, both LEDs will be off.

With the vehicle in the OFF ignition mode, momentarily pressing and releasing the S38 Ignition Mode Switch with the brake pedal not pressed the vehicle will enter into the Accessory ignition mode and the amber LED will illuminate. The Accessory mode has a predetermined time-out to prevent battery drain. For details, refer “Ignition Positions” in the vehicle owner manual.

With the vehicle in the OFF ignition mode, pressing and holding the S38 Ignition Mode Switch for greater than 10 s with the brake pedal not pressed the vehicle will enter into Service Mode ignition mode and the green LED will illuminate. In this mode, the vehicle will be in the Run ignition mode without the engine running. Service Mode is used for vehicle service and diagnostics that does not required the engine to be running. Service Mode will remain on until the vehicle is manually turned OFF by pressing and releasing the S38 Ignition Mode Switch. There is not battery run-down protection and leaving the vehicle in Service Mode may result is a depleted battery.

With the vehicle in the OFF ignition mode, momentarily pressing and releasing the S38 Ignition Mode Switch with the brake pedal pressed the vehicle will start and the green LED will illuminate. Upon engine starting, the vehicle will remain in the Run ignition mode. If the vehicle is left in PARK with the engine running, the vehicle will automatically turn off after a predetermined amount of time. This time will vary depending if the keyless entry transmitter was left in the vehicle. For details, refer "Extended Parking" in the vehicle owner manual.

With the vehicle in any ignition mode except Off, momentarily pressing and releasing the S38 Ignition Mode Switch the vehicle will enter the Off ignition mode.

Both LED's have the voltage supplied from the body control module (BCM). The ignition mode switch sends the ignition mode switch status to the passive entry passive start module (PEPS) and to the BCM. The PEPS module sends a redundant signal to the BCM with the ignition mode switch status.

Battery Saver Mode (Transport Mode) (If Equipped)

Battery saver mode (transport mode) reduces the parasitic load of some modules during overseas shipment or during vehicle storage conditions. This improves the drain time on the battery (up to 70 days without the battery going dead). When a vehicle is in transport/storage, some features may have reduced functionality while in the battery saver mode, such as disabling the Remote Function Actuator or content theft features. Battery saver mode is initiated by turning on the hazard flashers, applying the brake pedal, and then turning the ignition key to the start position or pushing the ignition mode switch with the foot on the brake for greater than 15 s. The mode is disengaged by repeating the previous process. The DIC (if equipped) will display Transport Mode is On when battery saver mode is enabled and Transport Mode is Off when battery saver mode is disabled. For vehicles not equipped with a DIC, the battery indicator light will constantly flash on the Instrument Cluster when battery saver mode is enabled. This feature can be used as many times as necessary if the vehicle is to be stored for an extended period of time.

Battery saver mode incorporates a latching relay that when enabled disconnects some modules from their ignition power or memory power sources. When battery saver mode is enabled and the vehicle is switched OFF, the BCM sends a momentary command to unlatch the relay disconnecting power up to 1 min after RAP is inactive. Every time the vehicle is switched ON the BCM will send a momentary command to latch the battery saver relay. This allows the use of all features when the ignition is ON. The BCM will send another command to unlatch the relay once the vehicle is switched OFF and RAP is inactive.

BCM Awake/Sleep States

The BCM is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

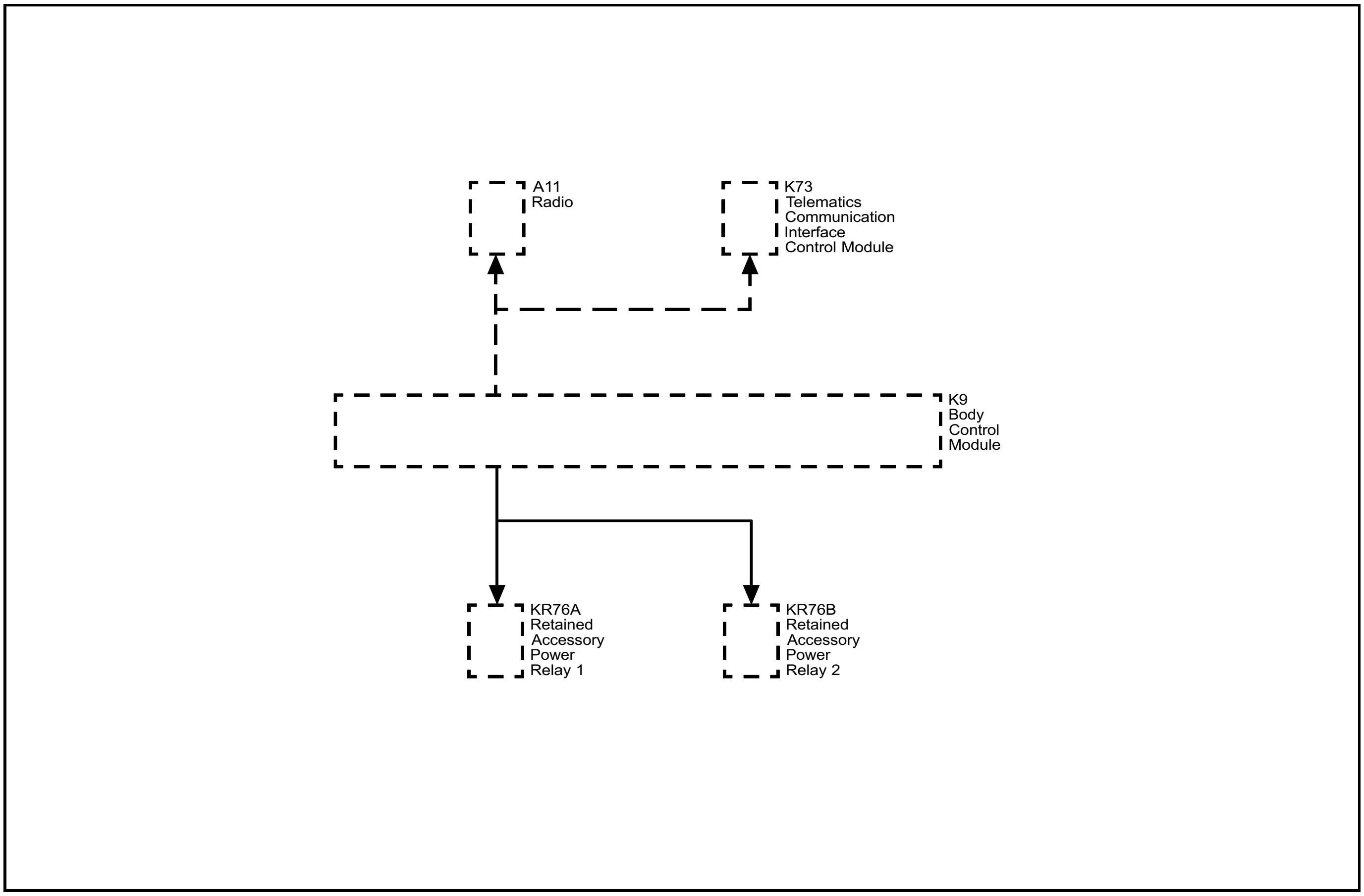
- The ignition switch is OFF, key out.
- Ignition OFF, transmitter is out of range
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

Retained Accessory Power Description and Operation

Retained Accessory Power

RAP Description and Operation Block Diagram



The body control module (BCM) monitors the ignition switch position, battery condition, and each door ajar/ open switch status to determine whether the retained accessory power should be initiated or terminated. Retained accessory power is controlled by two different methods; relay control and serial data. Some modules receive a retained accessory power message from the BCM over the serial data circuits. Serial data controlled retained accessory power is deactivated as required by their modules retained accessory power mode operation. Other subsystems are activated directly by the BCM through a relay. Components and systems that are active in retained accessory power are also activated anytime the ignition is any position other than OFF regardless of the door switch signals.

Relay Controlled Retained Accessory Power

The BCM keeps the retained accessory power relay 1 and retained accessory power relay 2 energized during all power modes, except Off-Awake and Crank. The retained accessory power relay 1 and retained accessory power relay 2 are also energized for approximately 10 minutes after shutting the ignition OFF and removing the key, providing no door is opened.

Relay controlled retained accessory power will end when one of the following conditions is met:

- The BCM receives an input from any door ajar or open switch indicating the opening of any door after the ignition key is out of the ignition.

  Note: If the BCM is receiving any door ajar or open signal from those switches when the ignition key is turned OFF, retained accessory power will not initiate.

- The BCM internal timer for the retained accessory power expires after approximately 10 minutes.
- The BCM detects a decrease in battery capacity below a prescribed limit.

Systems powered by the retained accessory power relay 1 and retained accessory power relay 2 during the retained accessory power mode are as follows:

Note: The vehicle may not be equipped with all components as listed below.

- Accessory Power Receptacle
- Cigarette Lighter Receptacle
- Sunroof Control Module
- Sunroof Switch

- Sliding Rear Window Switch
- Mobile Device Wireless Charger Module

Serial Data Controlled Retained Accessory Power

Retained accessory power systems controlled by serial data are as follows:

Radio

Radio retained accessory power activation / termination is the same as relay operation with one exception; the only door switch that will turn off the radio during retained accessory power is the driver door open switch.

Vehicle Communication Interface Module (VCIM) (Onstar®) (If Equipped)

VCIM RAP activation/termination is the same as radio operation with 1 exception; if there is an active call when the ignition key is turned off the VCIM will remain in RAP mode, and keep the radio in RAP mode until the call is terminated.

Trailering Description and Operation

Trailering System Overview

Begin the trailering system diagnosis with Diagnostic System Check - Trailering. The Diagnostic System Check - Trailering will provide a complete strategy to locate and repair a vehicle trailering electrical fault. Not following this strategy may cause additional diagnostic time and/or misdiagnosis.

The trailering system consists of the following:

- Trailer Battery Charging System, refer to Trailer Battery Charging Malfunction for additional diagnostic information.
- Trailer Brakes, refer to *Trailer Brake Controls Description and Operation on page 3-6* for additional information.
- Trailer Detection, refer to Trailer Detection Malfunction for additional diagnostic information.
- Trailer Lighting, refer to *Exterior Lighting Systems Description and Operation on page 2-47* for additional information.
- Trailer Tire Pressure Monitoring System (TTPMS), refer to Trailer Tire Pressure Monitor Description and Operation for additional information.
- Trailer Theft Detection.

When a trailer is connected to the X88 Trailer Connector on a vehicle equipped with side blind zone detection, rear park assist, and/or rear cross traffic alert, the vehicle will automatically turn these features off. These features are turned off to prevent false detections due to the trailer obstructing the view of the sensors.

Connecting Aftermarket Accessories

- Some aftermarket accessories that connect to the X88 Trailer Connector will be recognized by the vehicle as a trailer connected, even if the accessory is not a trailer. As a result, side blind zone detection, rear park assist, and/or rear cross traffic alert will be turned off anytime the vehicle detects a trailer/accessory is connected.
- Vehicles equipped with U1D have trailer theft detection that constantly monitors trailer connected status when enabled. This is done by periodically pulsing the lighting circuits of the trailer when the vehicle is parked. As a result, some aftermarket accessories may be turned ON/ OFF when connected to the vehicle with theft detection enabled.
- Vehicles equipped with U1D use pulse width modulation voltage (PWM) for trailer lighting functions. Some aftermarket accessories are incompatible with PWM and may not function correctly when connected to the trailer lighting circuits of the vehicle.

Trailer Battery Charging System

Trailer battery charging is accomplished through constant battery voltage from the X50A Fuse Block – Underhood to the X88 Trailer Connector. Battery voltage is supplied to terminal E at the X88 Trailer Connector at all times. If equipped, the trailer battery will constantly be charged by the vehicle’s electrical system anytime the trailer is connected. Some trailers require the B+ circuit to the X88 Trailer Connector for the trailer brakes to function.

Trailer Detection

With U1D

The K68 Trailer Lighting Control Module is supplied with battery voltage as well as ignition voltage and is permanently grounded. The trailer lighting control module constantly monitors for trailer connection status, this is accomplished through the lighting circuits of the trailer to determine if a trailer is connected. With the key OFF, the K68 Trailer Lighting Control Module will periodically pulse the lighting circuits of the trailer to verify it is still connected. Depending on the configuration of the trailer lights, the trailer lights may periodically flash as part of the trailer theft deterrent function. These flashes correspond to when the K68 Trailer Lighting Control Module pulses the lighting circuits to ensure the trailer is still connected and is considered normal. When a trailer is connected, the K68 Trailer Lighting Control Module senses the trailer connection and alerts the driver by requesting a trailer profile setup through the Trailering App, which is displayed on infotainment screen (P17 Info Display Module). If a trailer is disconnected with the ignition ON, the vehicle will display multiple trailer lighting message faults until a trailer is reconnected or the ignition is cycled.

With JL1, without U1D

Vehicles without U1D are not equipped with a K68 Trailer Lighting Control Module. Vehicles without U1D monitor trailer connection status through the trailer brake system. The K133 Trailer Brake Power Control

Module constantly monitors the trailer auxiliary control circuit from Terminal C at the X88 Trailer connector. When a trailer is connected with trailer brakes, the K133 Trailer Brake Power Control Module senses the connection and alerts the driver with a Trailer Connected message. If the K133 Trailer Brake Power Control Module senses a fault, or the trailer becomes disconnected, the vehicle will alert the driver with a Check Trailer Wiring message.

Trailer Lighting (With U1D)

The K68 Trailer Lighting Control Module is supplied with battery voltage as well as ignition voltage and is permanently grounded. For lighting operation, the K68 Trailer Lighting Control Module receives serial data messages from the K9 Body Control Module (BCM) indicating what lamps have been activated on the vehicle. The K68 Trailer Lighting Control Module responds by applying pulse width modulated voltage (PWM) to the appropriate control circuits for the requested lamps illuminating the lamps on the attached trailer. The K68 Trailer Lighting Control Module constantly monitors for trailer connection status, trailer lighting faults, and trailer theft deterrent purposes. This is accomplished through the lighting circuits of the trailer to determine if a trailer is connected. With the key OFF, the K68 Trailer Lighting Control Module will periodically pulse the lighting circuits of the trailer to verify it is still connected. The lights on the trailer may flash at different intervals with the key OFF depending on which type of lights the trailer is built with. If a trailer is disconnected with the key ON, the vehicle will display a trailer disconnected message until a trailer is reconnected or the ignition is cycled.

Backup Lamps

With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message that indicates the gear selector is in the reverse position. The K68 Trailer Lighting Control Module responds by applying PWM voltage to the X88 Trailer Connector on the trailer backup lamps control circuit when a trailer is connected. Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the K68 Trailer Lighting Control Module to remove battery voltage from the backup lamp control circuit.

Park Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the K9 Body Control Module (BCM). The BCM responds by sending a serial data message to the K68 Trailer Lighting Control Module. The K68 Trailer Lighting Control Module responds by applying PWM voltage to the X88 Trailer Connector on the trailer park lamp control circuit when a trailer is connected.

Stop Lamps

The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The K9 Body Control Module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM energizes the stop lamp relay circuit by applying voltage to the stop lamp relay control circuit. The K68 Trailer Lighting Control Module senses the voltage on the stop lamp relay circuit and responds by applying PWM voltage to the X88 Trailer Connector on the left and right trailer stop/turn signal lamp control circuits when a trailer is connected.

Turn Signal Lamps

Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the turn right or turn left position, ground is applied to the K9 Body Control Module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds by sending a serial data message to the K68 Trailer Lighting Control Module. The K68 Trailer Lighting Control Module responds by applying PWM voltage to the X88 Trailer Connector on either the left or right trailer stop/turn signal lamp control circuits when a trailer is connected.

Trailer Lighting (Without U1D)

Backup Lamps

For backup lamp operation, the backup lamp relay is supplied with battery voltage at all times. With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the K9 Body Control Module (BCM). The message indicates that the gear selector is in the reverse position. The BCM energizes the backup lamp relay by applying battery voltage to the backup lamp relay control circuit. When the backup lamp relay is energized, the relay switch contacts close and battery voltage is applied through the backup lamp fuses to the backup lamp control circuits which illuminates the backup lamps. Once the driver moves the gear selector out of the reverse position, a message is sent by the TCM via serial data requesting the BCM to remove battery voltage from the backup lamp relay control circuit.

Park Lamps

When the headlamp switch is placed in the HEAD or PARK position, ground is applied to the park lamp switch ON signal circuit to the K9 Body Control Module (BCM). The BCM responds by applying voltage to the park lamps, tail lamps, license lamps, and trailer park lamps control circuits illuminating the park, tail, license, and trailer park lamps.

Stop Lamps

For stop lamp operation, the left and right trailer stop/turn signal lamp relay’s are supplied with battery voltage at all times. The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The K9 Body Control Module (BCM) provides a low reference signal and a 5 V reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM energizes the left and right trailer stop/turn signal lamp relay's by applying voltage to the left and right stop lamp relay control circuits. With the left and right trailer stop/turn signal lamp relay's energized, the relay switch contacts close and battery voltage is applied through the left and right trailer stop/turn signal fuse's to the trailer stop lamp control circuits which illuminates the trailer stop lamps.

Turn Signal Lamps

For turn signal lamp operation, the left and right trailer stop/turn signal lamp relay's are supplied with battery voltage at all times. Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/multifunction switch is placed in either the turn right or turn left position, ground is applied to the K9 Body Control Module (BCM) through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by applying a pulsating voltage to the left and right trailer stop/turn signal lamp relay control circuits energizing the relay's in an ON and OFF cycle. With the left and right trailer stop/turn signal lamp relay's energized, the relay switch contacts cycle ON and OFF applying battery voltage through the left and right trailer stop/turn signal fuse's to the trailer turn signal lamp control circuits which illuminates the trailer turn signal lamps in an ON and OFF cycle.

Trailer Messages

The driver information center (P16 Instrument Cluster) or infotainment screen (P17 Info Display Module) may display one or more of the following messages to the user related to trailering.

Trailering Message	Description
Check Left Trailer Turn Signal Lamp	The K68 Trailer Lighting Control Module detects a fault on the left trailer stop/turn lamp control circuit
Check Right Trailer Turn Signal Lamp	The K68 Trailer Lighting Control Module detects a fault on the right trailer stop/turn lamp control circuit
Check Trailer Rear Lamp	The K68 Trailer Lighting Control Module detects a fault on the trailer park lamp control circuit.
Check Trailer Reversing Lamp	The K68 Trailer Lighting Control Module detects a fault on the trailer backup lamp control circuit.
Check Trailer Wiring	The K133 Trailer Brake Power Control Module detects a fault on the trailer brake control circuit or the trailer was disconnected.
Lane Change Alert Off	Reminder to the user that lane change alerts are turned off anytime a trailer is detected.
Rear Cross Traffic Alert Off	Reminder to the user that rear cross traffic alerts are turned off anytime a trailer is detected.
Rear Park Assist Off	Reminder to the user that rear park assist is turned off anytime a trailer is detected.
Remember to turn On Tow/Haul Mode	Reminder to the user to turn ON Tow/Haul Mode when towing.
Service Trailer Brake System	The K133 Trailer Brake Power Control Module detects a fault on the trailer brake control circuit.
Service Trailer Tire Monitor System	The K214 Trailer Tire Pressure Indicator Module detects one or more issues with the trailer tire pressure monitoring system.
Trailer Connected	The K68 Trailer Lighting Control Module detects that a trailer has been connected to the X88 Trailer Connector.
Trailer Detected (With U1D)	The K68 Trailer Lighting Control Module detects a trailer has been connected to the X88 Trailer Connector.

Trailering Message	Description
Trailer Detected (Without U1D)	The K133 Trailer Brake Power Control Module detects a trailer with trailer brakes has been connected to the X88 Trailer Connector.
Trailer Disconnected Check Connection	The K68 Trailer Lighting Control Module detects a trailer has been disconnected from the X88 Trailer Connector.
Trailer Tire Pressure High	The K214 Trailer Tire Pressure Indicator Module detects one or more of the trailer tire pressures is high.
Trailer Tire Pressure Low	The K214 Trailer Tire Pressure Indicator Module detects one or more of the trailer tire pressures is low.
Trailer Tire Sensor Fault	The K214 Trailer Tire Pressure Indicator Module detects one or more of the trailer tire pressure sensors has a fault.
Trailer Tire Temperature High	The K214 Trailer Tire Pressure Indicator Module detects one or more of the trailer tire temperatures is too high.

Trailer Theft Detection (With U1D Only)

Trailer theft monitoring can be turned ON and OFF through the vehicle Trailer App. Anytime the vehicle theft deterrent system is armed, the trailer lighting circuits are constantly monitored to determine if a trailer is connected for trailer theft deterrent purposes. With the key OFF, the K68 Trailer Lighting Control Module will periodically pulse the lighting circuits of the trailer to verify it is still connected by monitoring the voltage drop of the circuit. Depending on the configuration of the trailer lights, the trailer lights may periodically flash as part of the trailer theft deterrent function. These flashes correspond to when the K68 Trailer Lighting Control Module pulses the lighting circuits to ensure the trailer is still connected and is considered normal. If the trailer is disconnected while the vehicle theft deterrent system is armed, the vehicle will flash the exterior lights and cycle the horn to alert of a trailer theft event. Refer to Theft Systems Description and Operation for more information on the vehicle theft deterrent system.

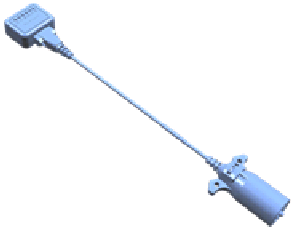
Trailering Diagnostic Tools

In some situations when diagnosing trailer tire pressure monitoring, trailer lighting, or integrated trailer brakes, it may be necessary to connect the vehicle to a trailer to confirm proper operation. Performing this activity may prove difficult in the service environment since trailers are not often available for diagnostic use, may have existing electrical issues outside of the issues a technician is attempting to diagnose, or simply may be too unwieldily to connect for diagnosis.

With all this in mind, it may be helpful to build or create a tool that can be plugged into the vehicle’s 7-way trailer connector and simulate a connected trailer. This tool would include park lamps, stop lamps, and a reverse lamp for lighting and trailer tire pressure monitoring diagnosis. It can be expanded to include trailer brake magnets to diagnose integrated trailer brake concerns. Also, an additional lamp can be included to diagnose the B+ circuit to the trailer.

Trailer issues are NOT covered under warranty, but these tools may be used to verify the vehicle is functioning properly and to help the customer understand and correct any trailer related issues if they so choose.

Available Trailer Presence Simulator Tool

Illustration	Tool Number/Description
 5166189	*EL-52641* Trailer Presence Simulator Tool

Simulated Trailer Lighting

Creating a tool to simulate a connected trailer can be used to diagnose issues with trailer lighting, trailer brake (if equipped), the Trailering App (if equipped), and trailer tire pressure monitoring system (if equipped).

If the vehicle is equipped with a K68 Trailer Lighting Control Module, the K68 Trailer Lighting Control Module monitors the current on the lighting circuits to determine a trailer has been connected. The K68 Trailer Lighting Control Module pulses current on the trailer lighting circuits every 10–15 s to monitor for a connected trailer. If a greater than 15mA draw is detected, the K68 Trailer Lighting Control Module recognizes this as a connected trailer. This will enable any trailer lighting controlled by the K68 Trailer Lighting Control Module. If the vehicle is also equipped with trailer tire pressure monitoring, the K68 Trailer Lighting Control Module will also use this trailer detection as a cue to enable the Trailering App and trailer tire pressure monitoring functions.

If the vehicle is not equipped with a K68 Trailer Lighting Control Module, the K9 Body Control Module controls the trailer lighting. The K9 Body Control Module does not actively monitor for a connected trailer. Instead, the K9 Body Control Module controls the trailer lights much like a parallel circuit with the vehicle lights.

Creating a Simulated Trailer Lighting Tool

Parts needed:

- 7-way RV trailer connector Qty: 1

  Note: The combination trailer park/stop/turn lamp must draw at least 15mA of current to be detected as a trailer. Some LED combination lamps will not draw enough current. If an LED combination lamp is used, make sure it draws at least 15mA. A load resistor can be added in series if necessary to obtain the correct load.

- Combination trailer park/stop/turn lamp (greater than 15mA drawn when on) Qty: 2
- Reverse lamp Qty: 1
- 12 gauge wire and terminals/connectors Qty: As needed
- 18 gauge wire and terminals/connectors Qty: As needed
- Mounting board Qty: 1

1. Connect a 12 gauge wire to the ground terminal of the 7-way trailer connector and the ground circuit of each combination trailer park/stop/turn lamp and the reverse lamp in parallel.
2. Connect an 18 gauge wire between the park lamp terminal of the 7-way trailer connector and the park lamp circuit of each combination trailer park/stop/turn lamp in parallel.
3. Connect an 18 gauge wire between the left turn/stop lamp terminal of the 7-way trailer connector and the turn/stop lamp circuit of left trailer park/stop/turn lamp.
4. Connect an 18 gauge wire between the right turn/stop lamp terminal of the 7-way trailer connector and the turn/stop lamp circuit of right trailer park/stop/turn lamp.
5. Connect an 18 gauge wire between the reverse lamp terminal of the 7-way trailer connector and the reverse lamp.

   Note: A combination trailer lighting and trailer brake tool can be created on the same mounting board.

6. Mount the left combination trailer park/stop/turn lamp, right combination trailer park/stop/turn lamp, and reverse lamp to the mounting board.
7. Plug the 7-way RV trailer connector to the vehicle and verify functionality.

Simulated Trailer Brakes

Creating a tool to simulate trailer brakes can be used to diagnose trailer brake issues.

The trailer brake control system is compatible with two types of trailer brake systems: electromagnetic or electro-over hydraulic trailer brakes. The Brake System Control Module must determine which type of brakes the trailer is equipped with so the system can output correctly for the trailer's brake system. Because the Brake System Control Module has to determine the type of trailer brake system that is being used, it can be sensitive to a variety of trailer wiring issues.

The Trailer Brake Power Control Module continuously sends a test pulse out on the trailer brake control circuit (circuit 47) to determine if a trailer with trailer brakes has been connected. How the pulse reacts when a trailer is connected is how the Trailer Brake Power Control Module determines which type of braking system the trailer is equipped with.

Even after the system detects the trailer, Trailer Brake Power Control Module will continue to send this test pulse on the trailer brake control circuit, which now is monitoring both the truck and trailer circuitry. The trailer brake control circuit continues to be monitored for any faults so the driver can be notified of any issues that may occur within the truck or trailer, as well as, to determine when the trailer is disconnected from the truck.

Creating a Simulated Trailer Brake Tool

Parts needed:

- 7-way RV trailer connector Qty: 1
- Electric trailer brake magnets Qty: 2, 4, 6, or 8
- Reverse lamp Qty: 1
- Mounting board Qty: 1
- 12 gauge wire and terminals/connectors Qty: As needed

1. Connect a 12 gauge wire to the ground terminal of the 7-way trailer connector.
2. Connect a 12 gauge wire to the brake controller output terminal of the 7-way trailer connector.

   Note: The trailer brake magnets must be connected in parallel. Connecting in series will create an excessive current draw and disable the trailer brake system.

3. Connect the trailer brake magnets to the 12 gauge wires from the 7-way trailer connector in parallel.

   Note: A combination trailer lighting and trailer brake tool can be created on the same mounting board.

4. Mount the trailer brake magnets to the mounting board.
5. Plug the 7-way RV trailer connector to the vehicle and verify functionality.

Section 8

Safety and Security

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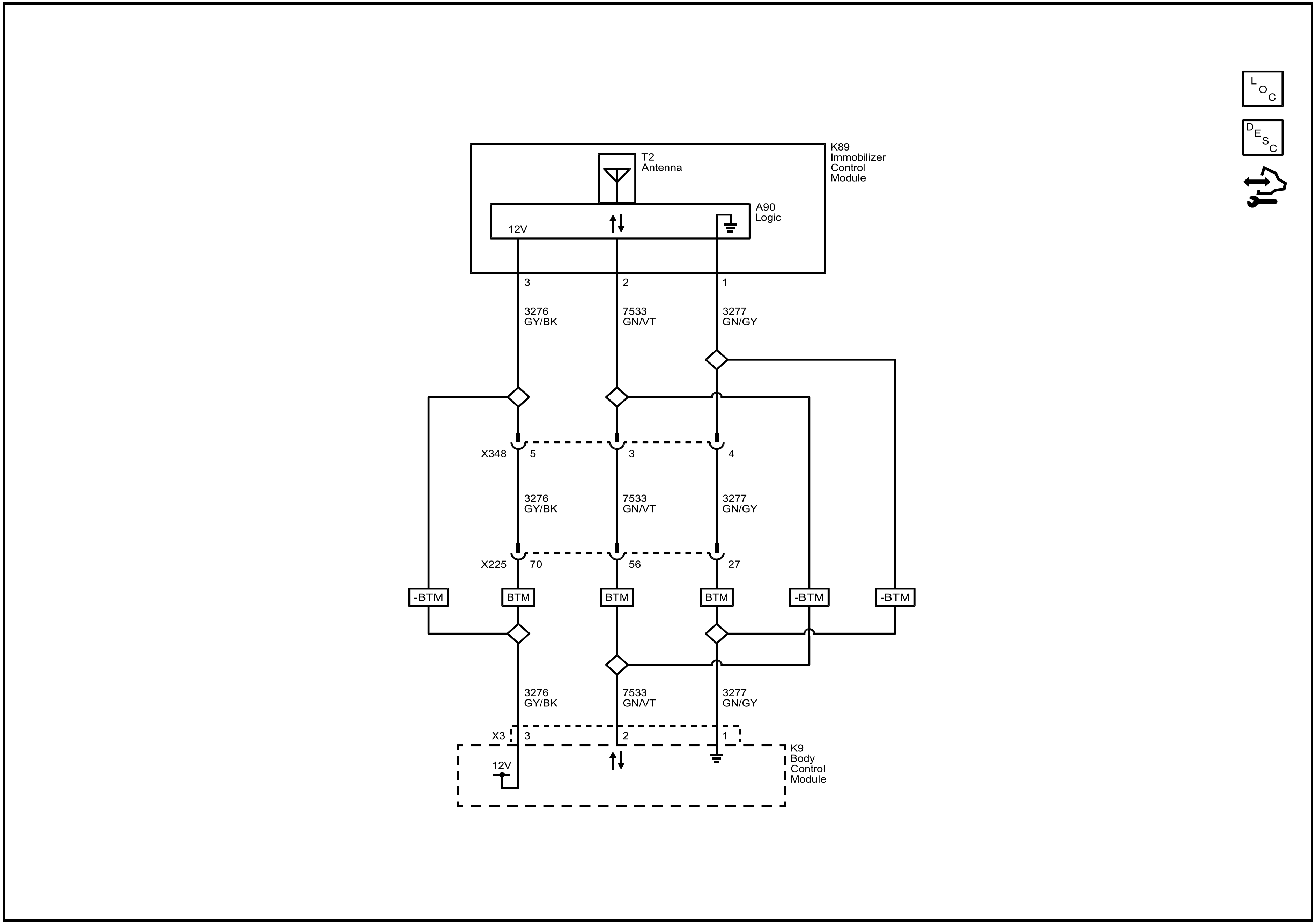
BLANK

Immobilizer

Schematic and Routing Diagrams

Immobilizer Schematics (Immobilizer)

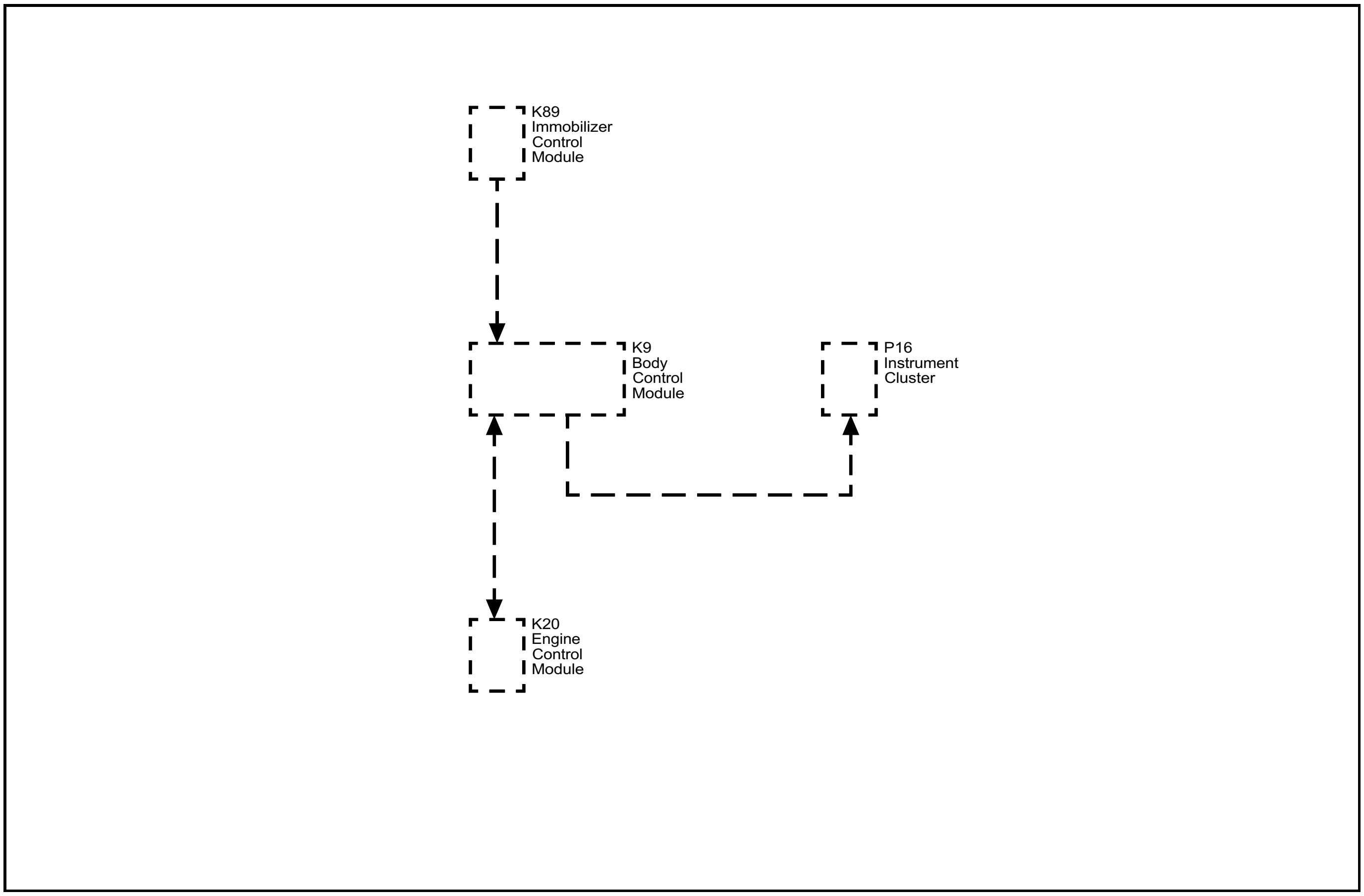


L O C
D E S C
K89
Immobilizer
Control
Module
T2
Antenna
A90
Logic
12V
3
2
1
3276
GY/BK
7533
GN/VT
3277
GN/GY
X348
5
3
4
X225
70
56
27
-BTM
BTM
X3
K9
Body
Control
Module

5256399

Description and Operation

Immobilizer Description and Operation



3510923

The immobilizer system functions are provided by the body control module (BCM) and the engine control module (ECM), as well as any control modules which store and report the environment identifier.

When an ignition key is inserted into the ignition lock cylinder and the ignition is switched ON, the transponder in the key is energized by the immobilizer coil surrounding the ignition lock cylinder. This immobilizer coil is part of the immobilizer control module. The transponder transmits a signal that contains its unique value, which is received by the BCM through the immobilizer coil. The BCM then compares this value to a value stored in memory. The BCM also monitors various control modules to determine if the stored environment identifiers match.

If both the environment identifier and the value received from the transponder match, the BCM will send the prerelease password via serial data to the ECM. If the encrypted code's unique value is incorrect or the environment identifier does not match, the BCM will send the start disable message to the ECM which will prevent the vehicle starter and fuel pump from operating.

When the ECM receives the BCM prerelease password, the ECM will challenge the password. The ECM sends this challenge to the BCM via serial data. Both the ECM and BCM perform a calculation on this challenge. If the BCM calculated response to the challenge equals the calculation performed by the ECM, the ECM will allow vehicle starting.

The components of the theft system are as follows:

- BCM
- ECM
- Immobilizer control module
- Ignition key
- Security indicator
- Various control modules which store and report the environment identifier

Body Control Module (BCM)

The immobilizer system is an integral part of the BCM and is controlled internally within the BCM. The BCM can learn up to 8 keys (transponder values).

The BCM uses the following inputs:

- Environment identifier exchange with various modules
- Encrypted code from the vehicle key, received by the immobilizer control module

The BCM uses the following outputs:

- Prerelease password communication with ECM
- Challenge/response with ECM

When an ignition key is inserted into the ignition lock cylinder and the ignition is switched ON, the encrypted code in the key is energized by the immobilizer control module surrounding the ignition lock cylinder. The energized transponder transmits a signal that contains its unique value, which is received by the BCM. The BCM then compares this value to the learned key code stored in memory. The BCM then performs one of the following functions:

- If the encrypted code value matches the values stored in the BCM memory, the BCM will send the prerelease password to the ECM via serial data.
- If the encrypted code unique value does not match the value stored in the BCM, the BCM will send the start disable message to the ECM via serial data.
- If the BCM is unable to measure the ignition key encrypted code value, the BCM will not send any messages to the ECM.

Engine Control Module (ECM)

When the ECM receives the BCM prerelease password, the ECM will challenge the password. The ECM sends this challenge to the BCM via the serial data circuit. Both the ECM and BCM perform a calculation on this challenge. If the calculated response from the BCM equals the calculation performed by the ECM, the ECM will allow vehicle starting.

The ECM will disable vehicle starting if any of the following immobilization conditions occur:

- The prerelease password is invalid.
- The start disable password is sent by the BCM.
- No passwords are received. There is no communication with the BCM.
- The BCM calculated response to the challenge does not equal the calculation performed by the ECM.

Immobilizer Control Module

The immobilizer control module contains an immobilizer coil which surrounds the ignition cylinder. The coil passively powers the transponder located in the ignition key when the key is in the ignition. When powered, the key transmits its unique value to the immobilizer control module, which is then relayed to the BCM via a discrete serial data circuit. The immobilizer control module also receives B+ and ground from the BCM.

The immobilizer control module is used to:

1. Learn keys
2. To start the vehicle

Ignition Key

Each ignition key contains a transponder with a unique encrypted value. The transponder's encrypted value is fixed and unable to be changed. The immobilizer system uses the ignition key transponder value to determine if a valid ignition key is being used to start the vehicle.

Environment Identifier

Various modules throughout the vehicle learn a specific environment identifier during the module programming process. The environment identifier is learned by each individual module and matches the environment identifier stored in the BCM. Prior to starting after a battery disconnect, each of the modules which store a environment identifier will compare their identifier to that of the identifier stored in the BCM. If all the identifiers match, the engine starting process will continue. If the environment identifiers do not match, engine starting will be disabled.

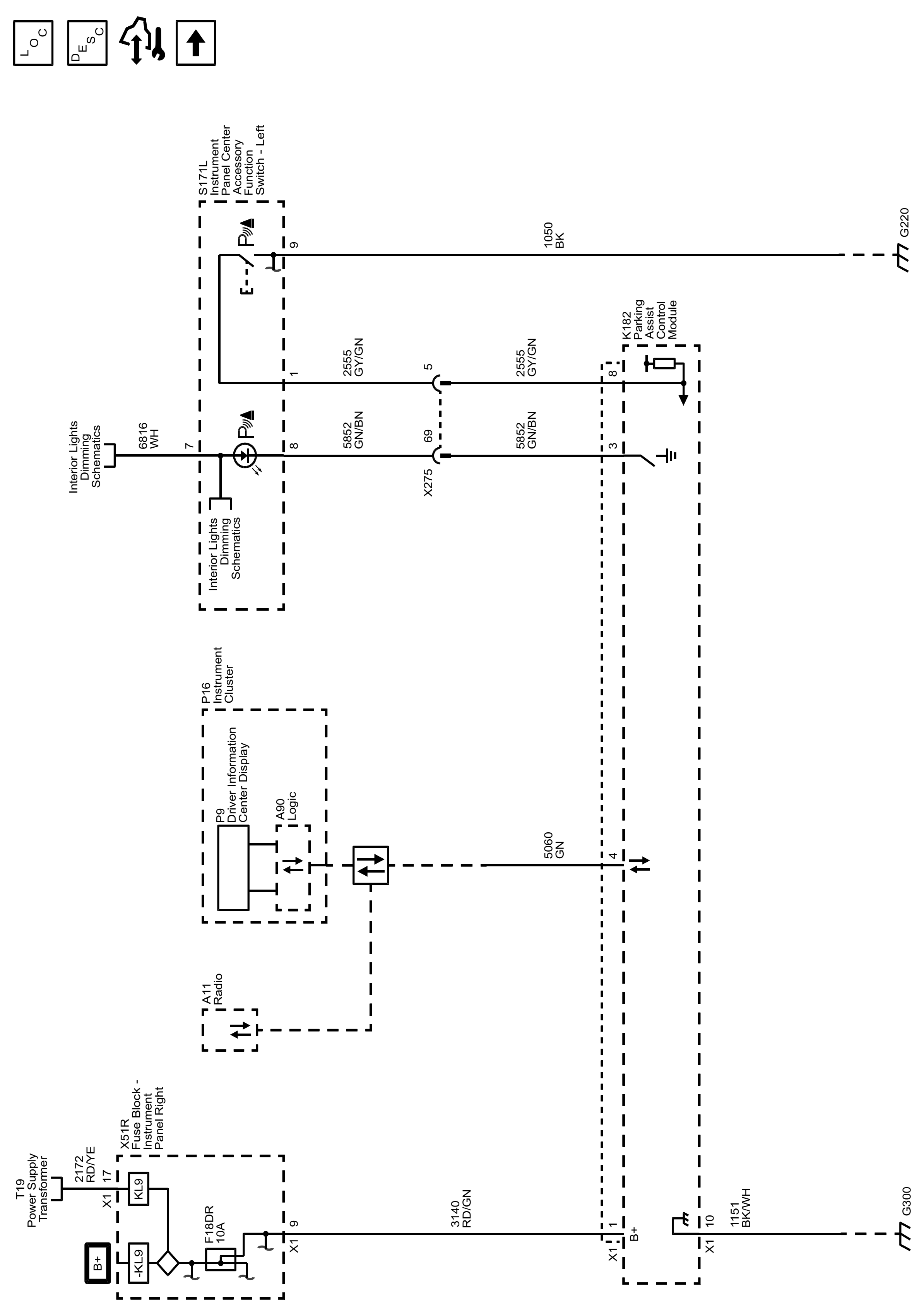
Security Indicator

The BCM will command the instrument cluster to illuminate the security indicator when the ignition is in the ON position to indicate a fault has occurred within the immobilizer system and when the engine starting is disabled.

Parking Assistance Systems

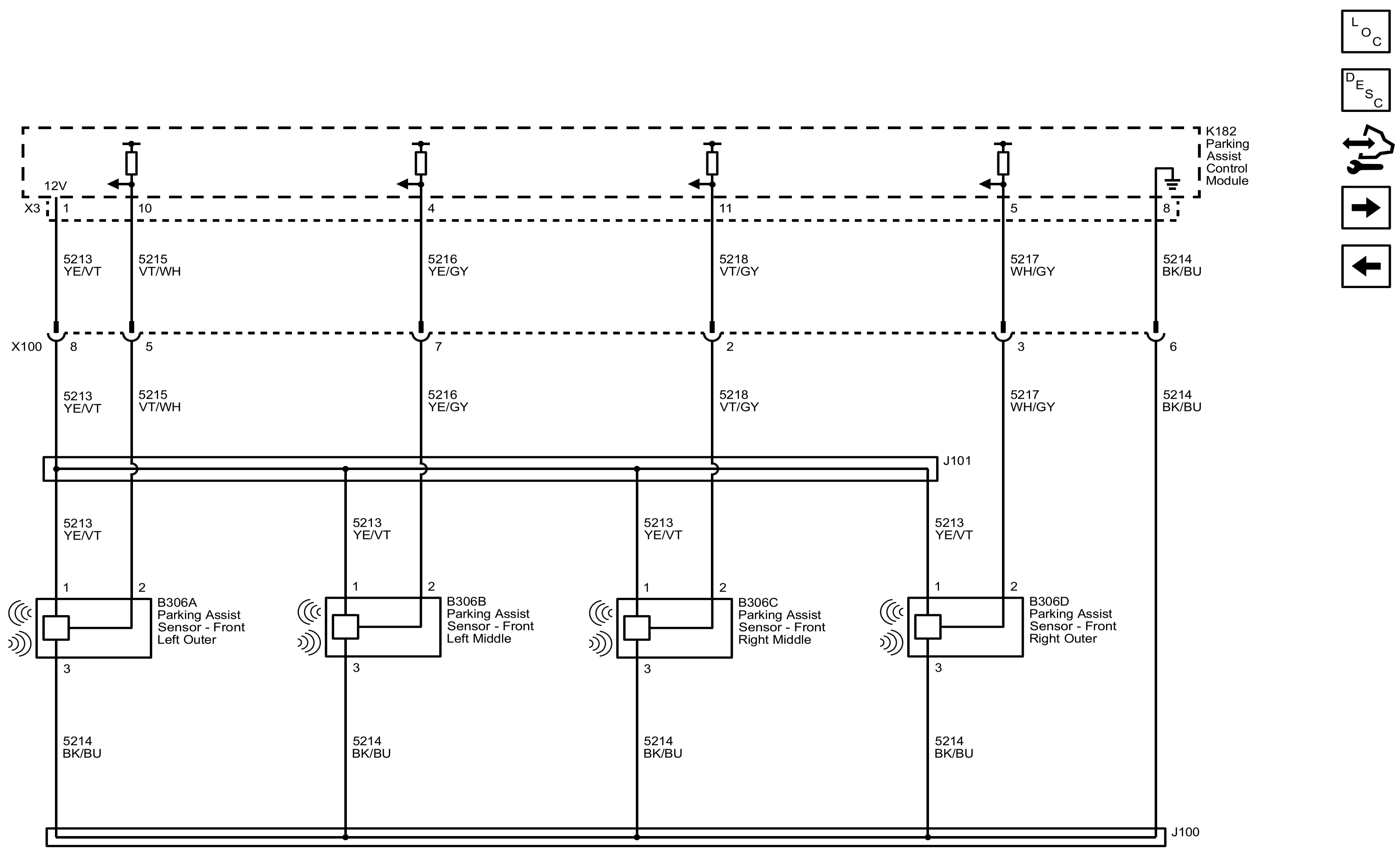
Schematic and Routing Diagrams

Parking Assistance Systems Schematics (Park Assist - Power, Ground, Serial Data, and Control (UD5/UD7))

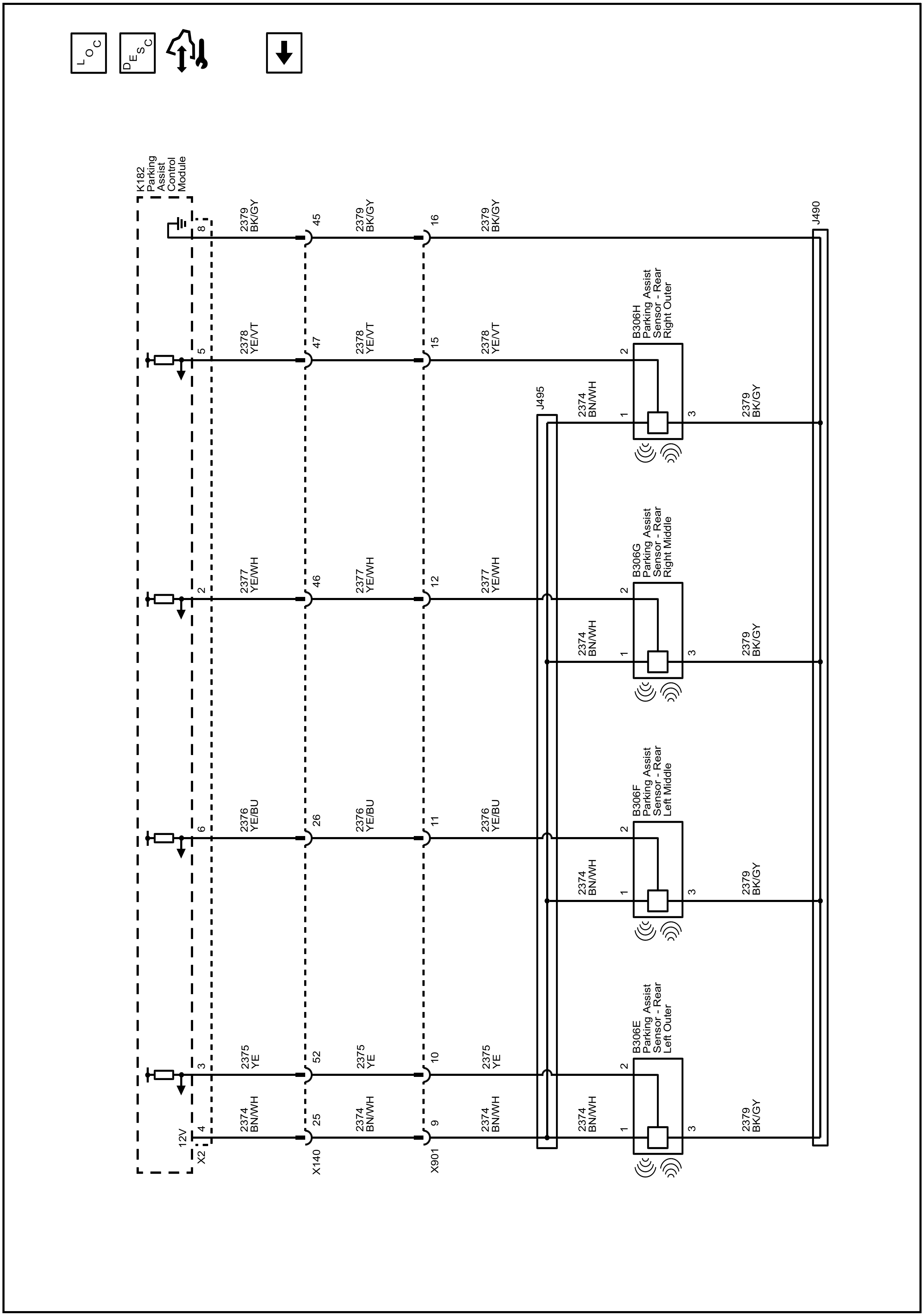

LOC
DESC
B+
-KL9
KL9
X1
17
2172
RD/YE
T19
Power Supply
Transformer
X51R
Fuse Block -
Instrument
Panel Right
F18DR
10A
X1
9
3140
RD/GN
A11
Radio
P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
5060
GN
Interior Lights
Dimming
Schematics
6816
WH
7
Interior Lights
Dimming
Schematics
S171L
Instrument
Panel Center
Accessory
Function
Switch - Left
8
1
9
5852
GN/BN
2555
GY/GN
1050
BK
X275
69
5
G220
K182
Parking
Assist
Control
Module
X1
1
B+
4
3
8
X1
10
1151
BK/WH
G300

5256402

Parking Assistance Systems Schematics (Park Assist - Front Sensors (UD5))


L O C
D E S C
K182
Parking
Assist
Control
Module
12V
X3
1
10
4
11
5
8
5213
YE/VT
5215
VT/WH
5216
YE/GY
5218
VT/GY
5217
WH/GY
5214
BK/BU
X100
8
5
7
2
3
6
J101
1
2
3
B306A
Parking Assist
Sensor - Front
Left Outer
B306B
Parking Assist
Sensor - Front
Left Middle
B306C
Parking Assist
Sensor - Front
Right Middle
B306D
Parking Assist
Sensor - Front
Right Outer
J100
5256404

Parking Assistance Systems Schematics (Park Assist - Rear Sensors (UD5/UD7))


5256406
K182 Parking Assist Control Module
X2
X140
X901
12V
4
3
6
2
5
8
25
52
26
46
47
45
9
10
11
12
15
16
2374 BN/WH
2375 YE
2376 YE/BU
2377 YE/WH
2378 YE/VT
2379 BK/GY
J495
J490
B306E Parking Assist Sensor - Rear Left Outer
B306F Parking Assist Sensor - Rear Left Middle
B306G Parking Assist Sensor - Rear Right Middle
B306H Parking Assist Sensor - Rear Right Outer
1
2
3

Description and Operation

Parking Assist Description and Operation (UD7)

The parking assist system is designed to identify and notify the driver of an object in the vehicle path when reversing at speeds of less than 8 km/h (5 mph). The distance and location of the object is determined by four object sensors located in the rear fascia The parking assist system will notify the driver using audible beeps through the infotainment system. Some vehicles may also have a parking assist display on the infotainment screen or driver information center to graphically display the distance to an object.

The parking assist system is made up of the following components:

- K182 Parking Assist Control Module
- B306 Parking Assist Sensors
- Parking Assist Switch
- Parking Assist Switch Indicator
- Infotainment system

K182 Parking Assist Control Module

The K182 Parking Assist Control Module provides a reference voltage and a low reference to the B306 Parking Assist Sensors. The K182 Parking Assist Control Module receives individual signals from each of the four B306 Parking Assist Sensors and determines the location and distance of an object based on these inputs. When an object is detected, the K182 Parking Assist Control Module will send a serial data message to the infotainment system requesting an audible alert.

B306 Parking Assist Sensors

The B306 Parking Assist Sensors are located in the rear fascia of the vehicle. The sensors are used to determine the distance between an object and the bumper. Each sensor emits an ultrasonic frequency which is reflected off any object located behind the vehicle. These reflections are received by the sensors. The time difference between the emission of the frequency and when the reflection is received is known as sensor echo time; it is used to determine the distance to the object. The sensors report this information to the K182 Parking Assist Control Module.

Parking Assist Switch

The parking assist system can be activated and deactivated by pressing the parking assist switch. The K182 Parking Assist Control Module applies voltage and monitors the parking assist switch signal circuit. The parking assist switch is a normally open switch. With the switch open, voltage seen at the K182 Parking Assist Control Module is high. When the parking assist switch is pressed, the switch is closed and the signal circuit is pulled to ground. With the switch closed, voltage seen at the K182 Parking Assist Control Module is low. The K182 Parking Assist Control Module will respond to this by activating or deactivating the parking assist function.

Parking Assist Switch Indicator

When the parking assist system is enabled, the K182 Parking Assist Control Module will illuminate the indicator on the switch. The indicator receives voltage through a high control circuit from the K9 Body Control Module and is controlled through a low control circuit by the K182 Parking Assist Control Module.

Infotainment System

The infotainment system controls the audible alert for the parking assist system. If the an object is detected the infotainment system will command beeps as an audible alert to the driver.

Parking Assist Operation

When an object is within the measuring range of the B306 Parking Assist Sensors, the ultrasonic pulse is reflected and is received by the sending or a neighboring sensor. The sensor converts this signal into a voltage signal and sends this signal to the K182 Parking Assist Control Module. The K182 Parking Assist Control Module evaluates the received sensor signals. As soon as an object is within the measuring range, the K182 Parking Assist Control Module sends a message via serial data to the infotainment system to provide an audible alert signal.

The parking assist system can detect objects greater than 7.6 cm (3 in) wide and 25.4 cm (10 in) tall. The system cannot detect objects below the bumper or underneath the vehicle.

When the transmission is in R, parking assist is automatically activated, unless disable through vehicle personalization.

The K182 Parking Assist Control Module carries out a self test and monitors the sensors for electrical and mechanical faults. Monitored is the power supply of each sensor and the sensor signals. Mud, ice and snow may cause obstruction of the function of the sensors. The K182 Parking Assist Control Module also determines if the correct type of sensor is installed. If any of these tests fails, a DTC with corresponding symptom is set and the parking assist system is deactivated.

Parking Assist System Messages

SERVICE PARK ASSIST

The driver information center displays SERVICE PARK ASSIST when the K182 Parking Assist Control Module detects a malfunction in the parking assist system and the system is disabled. The driver information center also displays SERVICE PARK ASSIST when a loss of communication occurs with the K182 Parking Assist Control Module.

PARK ASSIST OFF

The PARK ASSIST OFF message is displayed in the driver information center when the parking assist system is disabled due to conditions that disable or inhibit the system. The K182 Parking Assist Control Module requests the driver information center display PARK ASSIST OFF when it detects that one of the following conditions:

- The parking assist system is manually disabled.
- An object is attached to the rear of the vehicle, such as a trailer, bicycle rack, trailer hitch receiver, or tow bar. Also, an object extending beyond a lowered tailgate will disable the system.

- The parking assist sensors are covered by snow, mud, dirt, slush, or ice.
- The vehicle rear fascia is damaged.
- Excessive paint thickness on a replacement B306 Parking Assist Sensor.
- The B306 Parking Assist Sensors are disrupted by vibrations, like those caused by a large nearby vehicle or from heavy equipment such as a jackhammer.

Parking Assist Description and Operation (UD5)

The parking assist system can help drivers avoid certain objects in their path during low-speed parking. The distance and location of the object is determined by 4 object sensors located in the rear fascia and 4 object sensors located in the front fascia. The parking assist system may not detect all children, pedestrians, bicyclists, animals or objects below the bumper. Drivers should remember to always check the area around the vehicle before moving forward or backing up. The parking assist system will not stop or slow down a vehicle. It does not engage a vehicle’s throttle or braking. No safety system can take the place of an alert and engaged driver.

The parking assist system is made up of the following components:

- K182 Parking Assist Control Module
- B306 Parking Assist Sensors
- Parking Assist Switch
- Parking Assist Switch Indicator
- Safety Alert Seat (HS1)
- Infotainment system

K182 Parking Assist Control Module

The K182 Parking Assist Control Module provides a reference voltage and a low reference to the B306 Parking Assist Sensors. The K182 Parking Assist Control Module receives individual signals from each of the four B306 Parking Assist Sensors and determines the location and distance of an object based on these inputs. When an object is detected, the K182 Parking Assist Control Module will send a serial data message to the infotainment system requesting an audible alert.

B306 Parking Assist Sensors

The B306 Parking Assist Sensors are located in the front and rear fascia of the vehicle. The sensors are used to determine the distance between an object and the bumper. Each sensor emits an ultrasonic frequency which is reflected off any object located behind the vehicle. These reflections are received by the sensors. The time difference between the emission of the frequency and when the reflection is received is known as sensor echo time; it is used to determine the distance to the object. The sensors report this information to the K182 Parking Assist Control Module.

Parking Assist Switch

The parking assist system can be activated and deactivated by pressing the parking assist switch. The K182 Parking Assist Control Module applies voltage and monitors the parking assist switch signal circuit. The parking assist switch is a normally open switch. With the switch open, voltage seen at the K182 Parking Assist Control Module is high. When the parking assist switch is pressed, the switch is closed and the signal circuit is pulled to ground. With the switch closed, voltage seen at the K182 Parking Assist Control Module is low. The K182 Parking Assist Control Module will respond to this by activating or deactivating the parking assist function.

Parking Assist Switch Indicator

When the parking assist system is enabled, the K182 Parking Assist Control Module will illuminate the indicator on the switch. The indicator receives voltage through a high control circuit from the K9 Body Control Module and is controlled through a low control circuit by the K182 Parking Assist Control Module.

Safety Alert Seat (HS1)

The K40 Seat Memory Control Module controls the P45 Seat Haptic Movement Motors. The P45 Seat Haptic Movement Motors provide haptic alert to the driver. If an object is detected, the K40 Seat Memory Control Module will command pulses to the P45 Seat Haptic Movement Motors as an alert to the driver.

Infotainment System

The infotainment system controls the audible alert for the parking assist system. If the an object is detected the infotainment system will command beeps as an audible alert to the driver.

Front and Rear Parking Assist Operation

The rear parking assist system uses 4 B306 Parking Assist Sensors located on the rear fascia and functions when the transmission is in REVERSE. When a driver is backing up at a low speed, below 8 km/h (5 mph), the B306 Parking Assist Sensors may detect objects up to 8 feet (2.4 m) behind the vehicle. When an object is within the measuring range of the B306 Parking Assist Sensors, the ultrasonic pulse is reflected and is received by the sending or a neighboring sensor. The sensor converts this signal into a voltage signal and sends this signal to the K182 Parking Assist Control Module. The K182 Parking Assist Control Module evaluates the received sensor signals.

When an object is first detected while backing up, the parking assist system emits low-pitched beeps from the rear speakers, or, if the vehicle is equipped with the Safety Alert Seat (HS1), the seat pulses 2 times on both sides of the seat. On some vehicles, the time between beeps may get shorter as the vehicle approaches the detected object . When an object is within 0.6 m (2 ft) of the bumper, 5 repeating low-pitched beeps are played from the rear speakers, or, if the vehicle is equipped with the Safety Alert Seat (HS1), it pulses 5 times on both sides. When an object is within 0.3 m (1 ft) of the bumper, repeating low-pitched beeps or a continuous low-pitched tone is played from the rear speakers, or, if the vehicle is equipped with the Safety Alert Seat (HS1), the seat pulses 5 times on both sides

The front parking assist system uses 4 B306 Parking Assist Sensors located on the front fascia and functions when the vehicle is moving forward at low speeds.

When a driver is driving forward at a low speed, below 8 km/h (5 mph), the B306 Parking Assist Sensors may detect objects up to 8 feet (2.4 m) in front og the vehicle. When an object is within the measuring range of the B306 Parking Assist Sensors, the ultrasonic pulse is reflected and is received by the sending or a neighboring sensor. The sensor converts this signal into a voltage signal and sends this signal to the K182 Parking Assist Control Module. The K182 Parking Assist Control Module evaluates the received sensor signals.

The front parking assist system uses a parking assist display with bars that show "distance to object," driving direction, and object location information for the parking assist system. As the vehicle gets closer to the detected object, distance-to-object information and caution triangles may be displayed that changes from yellow to amber to red.

When an object is within 0.3 m (1 ft) of the bumper, repeating low-pitched beeps or a continuous low-pitched tone is played from the rear speakers, or, if the vehicle is equipped with the Safety Alert Seat (HS1), the seat pulses 5 times on both sides

The parking assist system can be turned ON and OFF using the parking assist switch control or through driver information center.

The K182 Parking Assist Control Module carries out a self test and monitors the sensors for electrical and mechanical faults. Monitored is the power supply of each sensor and the sensor signals. Mud, ice and snow may cause obstruction of the function of the sensors. The K182 Parking Assist Control Module also determines if the correct type of sensor is installed. If any of these tests fails, a DTC with corresponding symptom is set and the parking assist system is deactivated.

Parking Assist System Messages

SERVICE PARK ASSIST

The driver information center displays SERVICE PARK ASSIST when the K182 Parking Assist Control Module detects a malfunction in the parking assist system and the system is disabled. The driver information center also displays SERVICE PARK ASSIST when a loss of communication occurs with the K182 Parking Assist Control Module.

PARK ASSIST OFF

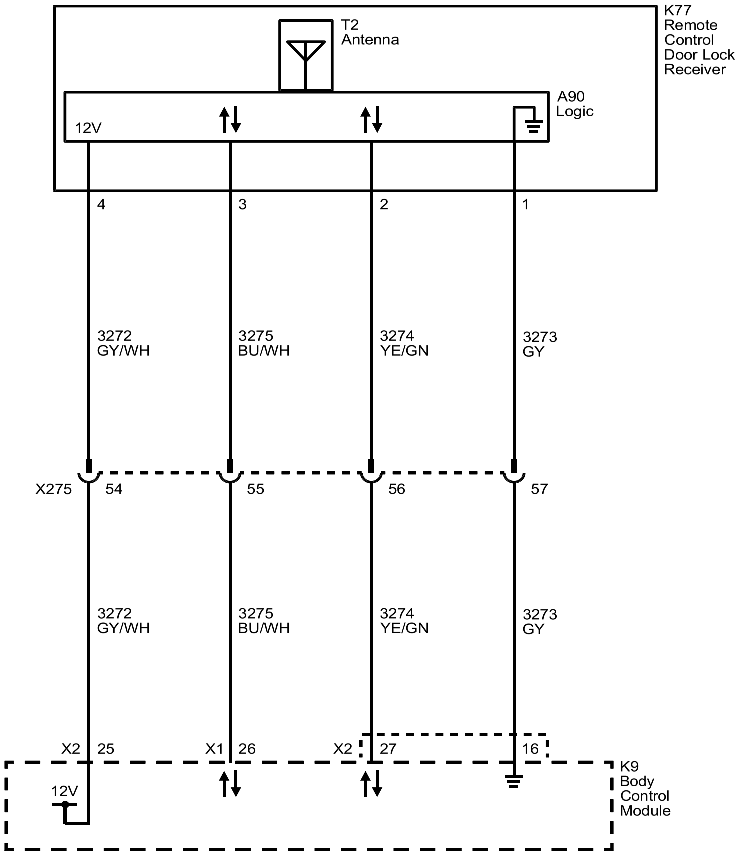
The PARK ASSIST OFF message is displayed in the driver information center when the parking assist system is disabled due to conditions that disable or inhibit the system. The K182 Parking Assist Control Module requests the driver information center display PARK ASSIST OFF when it detects that one of the following conditions:

- The parking assist system is manually disabled.
- An object is attached to the rear of the vehicle, such as a trailer, bicycle rack, trailer hitch receiver, or tow bar. Also, an object extending beyond a lowered tailgate will disable the system.
- The B306 Parking Assist Sensors are covered by snow, mud, dirt, slush, or ice.
- The vehicle front or rear fascia is damaged.
- Excessive paint thickness on a replacement B306 Parking Assist Sensor.
- The B306 Parking Assist Sensors are disrupted by vibrations, like those caused by a large nearby vehicle or from heavy equipment such as a jackhammer.

Remote Functions

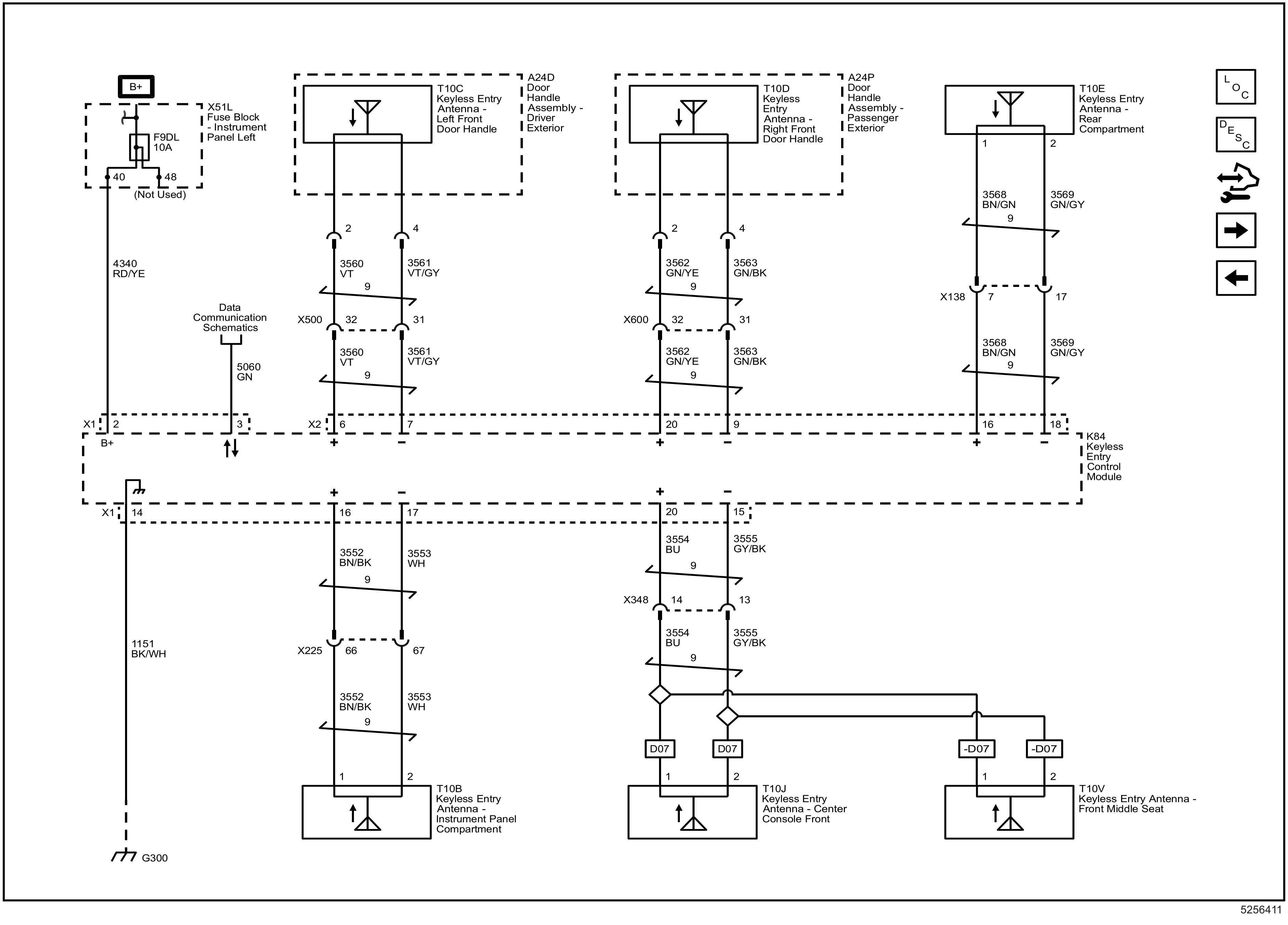
Schematic and Routing Diagrams

Remote Function Schematics (Keyless Entry - Active)

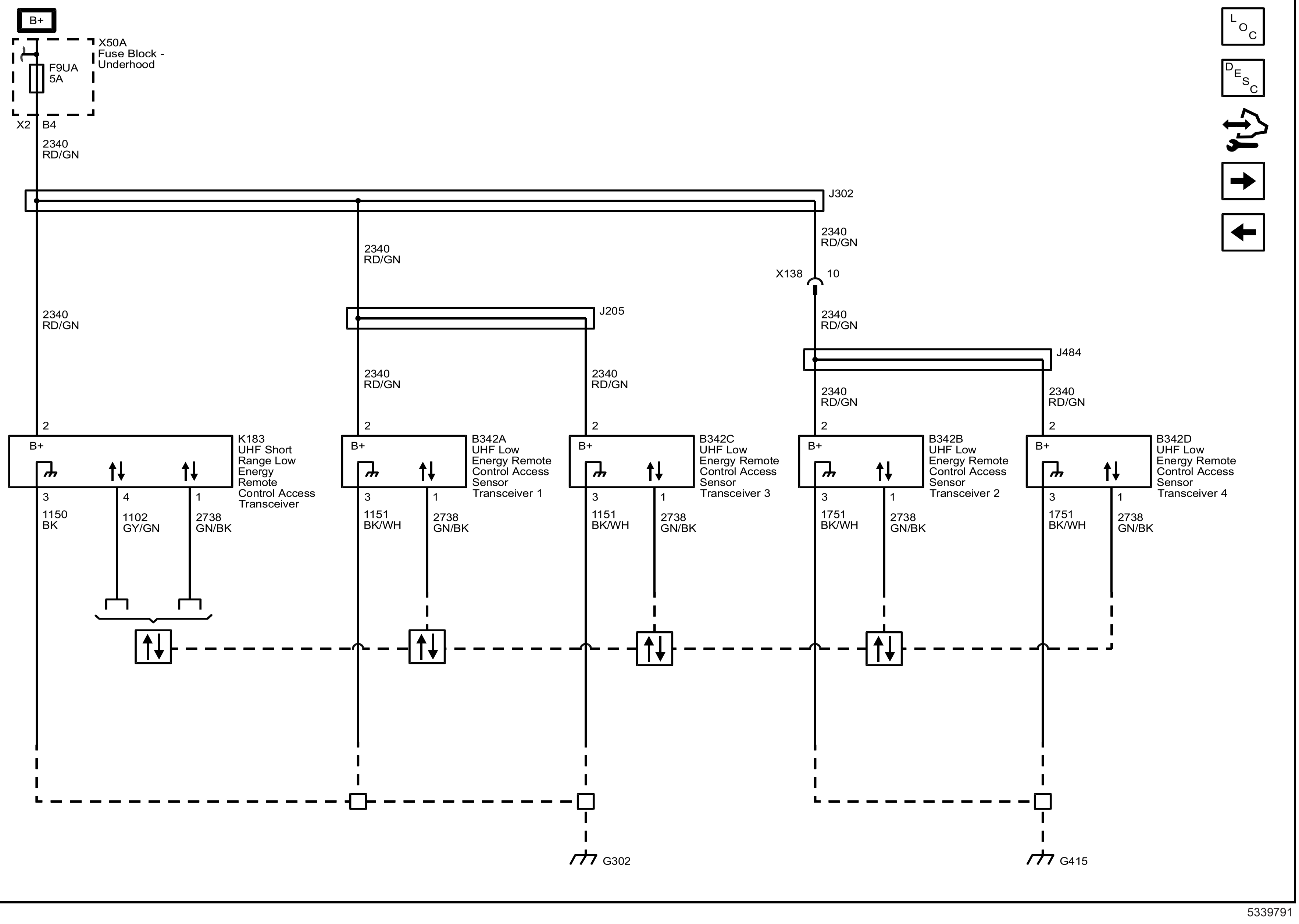

K77
Remote
Control
Door Lock
Receiver
T2
Antenna
A90
Logic
12V
4
3
2
1
3272
GY/WH
3275
BU/WH
3274
YE/GN
3273
GY
X275
54
55
56
57
3272
GY/WH
3275
BU/WH
3274
YE/GN
3273
GY
X2
25
X1
26
X2
27
16
12V
K9
Body
Control
Module

5256408

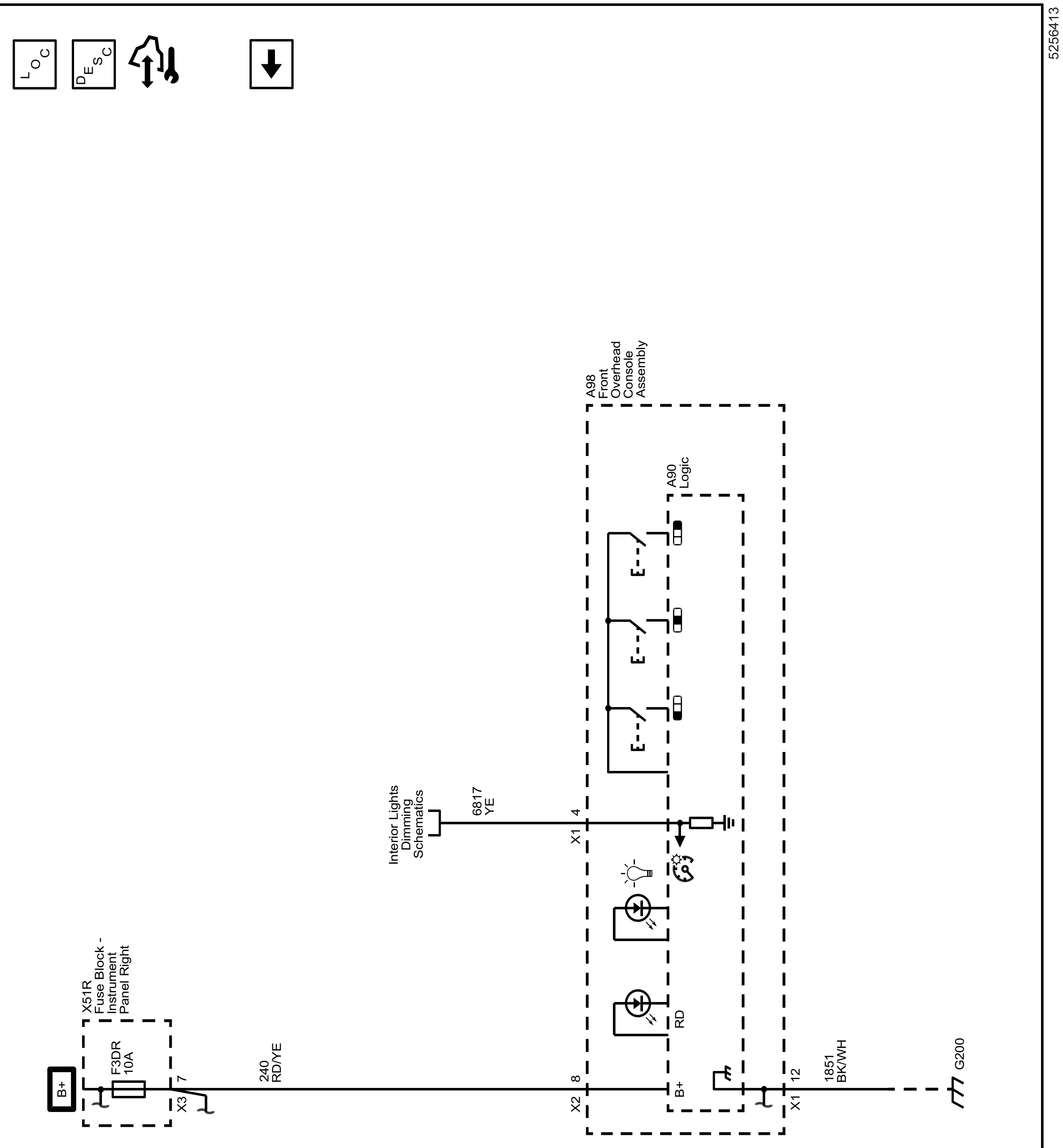
Remote Function Schematics (Keyless Entry - Passive and Keyless Start)


L O C
D E S C
B+
X51L Fuse Block - Instrument Panel Left
F9DL 10A
40
48
(Not Used)
4340 RD/YE
Data Communication Schematics
5060 GN
X1 2
3
B+
T10C Keyless Entry Antenna - Left Front Door Handle
A24D Door Handle Assembly - Driver Exterior
2
4
3560 VT
3561 VT/GY
9
X500 32
31
X2 6
7
T10D Keyless Entry Antenna - Right Front Door Handle
A24P Door Handle Assembly - Passenger Exterior
3562 GN/YE
3563 GN/BK
X600 32
31
20
9
T10E Keyless Entry Antenna - Rear Compartment
1
2
3568 BN/GN
3569 GN/GY
X138 7
17
16
18
K84 Keyless Entry Control Module
+
−
X1 14
16
17
20
15
3552 BN/BK
3553 WH
X225 66
67
3554 BU
3555 GY/BK
X348 14
13
1151 BK/WH
G300
D07
D07
-D07
-D07
T10B Keyless Entry Antenna - Instrument Panel Compartment
T10J Keyless Entry Antenna - Center Console Front
T10V Keyless Entry Antenna - Front Middle Seat
5256411

Remote Function Schematics (Keyless Entry - Virtual Key (BOP))


B+
X50A
Fuse Block -
Underhood
F9UA
5A
X2
B4
2340
RD/GN
J302
X138
10
J205
J484
2
B+
3
4
1
K183
UHF Short
Range Low
Energy
Remote
Control Access
Transceiver
1150
BK
1102
GY/GN
2738
GN/BK
B342A
UHF Low
Energy Remote
Control Access
Sensor
Transceiver 1
1151
BK/WH
B342C
UHF Low
Energy Remote
Control Access
Sensor
Transceiver 3
B342B
UHF Low
Energy Remote
Control Access
Sensor
Transceiver 2
1751
BK/WH
B342D
UHF Low
Energy Remote
Control Access
Sensor
Transceiver 4
G302
G415
L O C
D E S C
5339791

Remote Function Schematics (Garage Door Opener (UG1))


5256413
B+
F3DR
10A
X51R
Fuse Block -
Instrument
Panel Right
X3 7
240
RD/YE
X2 8
B+
RD
Interior Lights
Dimming
Schematics
6817
YE
X1 4
A98
Front
Overhead
Console
Assembly
A90
Logic
X1 12
1851
BK/WH
G200

Description and Operation

Garage Door Opener Description and Operation

The garage door opener is fixed and rolling code capable. Rolling code is a system that allows the code that the customers receiver receives from the garage door opener to change every time the garage door opener is used within operating range of the receiver. Rolling code programming requires the customer to push a learn/program button on the garage door opener receiver at their home. This button is usually located on the receiver unit under a cover (light cover) on one end of the unit. The customer must follow the garage door opener manufacturers instructions to program/learn the receiver to accept the Universal Home Remote System as an authorized opener for their unit . When the receiver and the garage door opener are initially programmed together, a code is established and a new code is created for every new transmission. The software in the receiver recognizes the garage door opener and accepts the new code.

The garage door opener is compatible with most, but not all types and brands of transmitters.

The garage door opener is a transmitter operating between 288–434 MHz. The power and range of the transmitter is limited to comply with laws governing the generation of radio frequency interference. The transmitter is programmed by the user to accept the signal generated by the user's transmitters.

The garage door opener has 3 buttons that may be programmed for individual transmitter/receiver combinations to control up to 3 garage door openers, security gates, lighting systems, etc. Each button represents a transmitter code section of the transmitter, which operates separately from any other button, and may be considered a separate transmitter. Operation consists of simply pressing a button to activate the corresponding transmitter.

Note: Do not use the garage door opener (GDO) with any garage door opener that does not have the stop and reverse safety feature. This includes any garage door opener model manufactured before April 1, 1982.

Keyless Entry System Description and Operation

The keyless entry system is a vehicle entry device. The keyless entry system is used in conjunction with the door locks to unlock the vehicle. Keyless entry will lock/unlock the vehicle doors or open the rear compartment lid when a corresponding button on the keyless entry transmitter is pressed. This is accomplished by the transmitter sending a radio frequency to the remote control door lock receiver antenna that has a direct link to the body control module (BCM). The BCM interprets the signal and activates the requested function or request the appropriate control module to activate the function via a serial data message. A low transmitter battery or radio frequency interference from aftermarket devices, such as 2-way radios, power inverters, computers, etc., may cause a system malfunction. High radio frequency traffic areas, such as gas stations that use pay-at-the-pump radio frequency transponders, may also cause interference that could lead to a malfunction. Keyless entry allows you to operate the following features:

- Door lock/unlock
- Liftgate lock/unlock, if equipped
- Trunk release, if equipped
- Power liftgate, if equipped
- Panic alarm/vehicle locator
- Remote vehicle starting, if equipped

The keyless entry system has the following components:

- Keyless entry transmitters
- Body control module
- Remote control door lock receiver

Keyless Entry Transmitters

Note: When the vehicle key is in the ignition, keyless entry functions from all keyless entry transmitter are disabled.

The keyless entry transmitters are used to perform various entry functions while away from the immediate are of the vehicle. Keyless entry functions may work at up to 20 m (65 ft) away from the vehicle. Ambient conditions may affect the performance of the keyless entry transmitter and reduce the range at which keyless entry functions operate. Up to eight transmitters may be programmed to a single vehicle. The keyless entry transmitter is an integral part of the vehicle key.

OnStar® Remote Link (if equipped)

A vehicle operator may have the ability to perform some of the keyless entry functions using applications on personal devices such as a smart phone. Unwanted or inadvertent door lock/unlock activation may be requested by the OnStar® Remote Link application. It is possible that a customer may be unaware of account usage, resulting in an unwanted or phantom door lock/unlock. If normal system diagnosis results in an inability to verify the customer’s concern, contact Technical Assistance Center (TAC).

Body Control Module (BCM)

The BCM is a multifunction module that operates the keyless entry system. When a radio frequency message is received from a keyless entry transmitter, the BCM interprets this signal and performs the specific function, i.e. door lock, door unlock, or vehicle locate.

Remote Control Door Lock Receiver

The remote control door lock receiver acts as an antenna for the keyless entry system and communicates with the BCM through a dedicated serial data link. When a button is pressed on a keyless entry transmitter, the remote control door lock receiver receives this signal and sends the request to the BCM. The BCM interprets the signal and performs the specific function, i.e. door lock, door unlock, or vehicle locate.

Unlock Doors

Momentarily press the transmitter UNLOCK button in order to perform the following functions:

- Unlock only the driver door or all doors and liftgate (if equipped); this is customized through the driver information center.
- Illuminate the interior lamps for a determined length of time or until the ignition is turned ON.
- Flash the exterior lights; this is customized through the driver information center.
- Disarm the content theft deterrent system, if equipped.
- Deactivate the content theft deterrent system when in the alarm mode.

Lock All Doors

Press the transmitter LOCK button to perform the following functions:

- Lock all vehicle doors.
- Immediately turn OFF the interior lamps.
- Flash the exterior lights and/or sound the horn; this is customized through the driver information center.
- Arm the content theft deterrent system.

Trunk Release, if equipped

Press the trunk release button on the transmitter to open the trunk.

Power Liftgate, if equipped

Press and hold the power liftgate button to perform the following functions:

- Open or close the liftgate using the power liftgate function.
- Flash the tail lamps.
- Sound the interior power liftgate chime.

Vehicle Locator/Panic Alarm

A single press of the panic button performs the following functions. Some functions may be dependent on personalization settings:

- Pulse the horn three times.
- Flash the exterior lamps three times.

A press and hold of the panic button performs the following functions:

- Illuminate the interior lamps.
- Pulse the horn and flash the exterior lamps for 30 seconds or until the following conditions occur:
  - – The panic button is pressed.
  - – The ignition switch is turned to the RUN position with a valid key.

Remote Vehicle Start, if equipped

The remote vehicle start function allows engine starting while not in the vehicle. It also allows the vehicle HVAC system and other vehicle systems to enable, providing a comfortable vehicle upon entry. The remote vehicle start sequence begins by pressing and releasing the lock button and then pressing and holding the remote vehicle start buttons on the keyless entry transmitter. The turn signal lamps will illuminate to indicate the vehicle has received the remote start request. Each time a remote vehicle start is performed, the vehicle doors are locked, however they may then be unlocked/locked with the transmitter at any time. Only the first and second vehicle transmitters are able to control the remote vehicle start function. Any additional remote transmitters programmed to the vehicle will perform all other remote functions. Once activated, the engine is allowed to run for 10 minutes. The remote vehicle start time may be extended by an additional 10 minutes by again pressing and releasing the lock button and then pressing and holding the remote vehicle start buttons on the transmitter. This feature is called a remote vehicle start continue and allows a maximum of 20 minutes of engine running. If the remote vehicle start continue is performed at 7 minutes into the initial 10 minute time-out, a total of 17 minutes of engine running would occur. The remote vehicle start event may be suspended at any time by pressing only the remote vehicle start button on the transmitter or by entering the vehicle and turning ON the hazard lamps.

In between ignition cycles, only two remote vehicle start events may occur or be attempted. Once two events or attempts have been made, future remote vehicle start events will be suspended until the vehicle is started using the ignition.

Enable/Disable Remote Vehicle Start

Using the driver information center, remote vehicle start may be enabled or disabled as a part of vehicle personalization. Refer to the vehicle owners manual for more information.

Hood Ajar Switch

The hood switch provides status of the hood to the BCM for remote vehicle start purposes. The switch is integrated into the hood latch assembly.

Remote Vehicle Start Circuit Description

The BCM receives a signal from the keyless entry transmitter indicating a remote vehicle start request. A message is then sent to the BCM which determines if a crank request message will be sent to the ECM to allow engine starting. To determine if conditions are correct for a remote vehicle start event, the BCM will ensure the following conditions are met:

- A valid hood ajar switch closed signal is present.
- The doors are locked.
- The low fuel warning light is off.
- The hazard switch is OFF.
- The vehicle power mode is correct.
- No content theft deterrent alarm triggers are present.

When the BCM determines all conditions meet those required for a remote vehicle start event, a message is sent via serial data to the ECM. The ECM relies on the remote vehicle start message from the BCM to enable remote vehicle start when the crank request signal is received. If the ECM does not receive a valid remote vehicle start message, it will not attempt to start the engine. While the ECM is in remote vehicle start mode it will suspend engine operation if any of the following additional conditions occur:

- Vehicle speed is greater than 0
- Transmission is not in PARK
- Excessive engine coolant temperature
- Low oil pressure
- The malfunction indicator lamp (MIL) is commanded ON
- Engine crank time is greater than 30 seconds
- Excessive engine speed
- Accelerator pedal position too high
- Remote start timer equals 0
- Immobilizer system indicates tamper

Keyless Entry Personalization

Vehicle lock/unlock functions and remote vehicle start settings may be personalized. For functional descriptions and personalization instructions, refer to the vehicle owners manual.

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Section 9

Transmission

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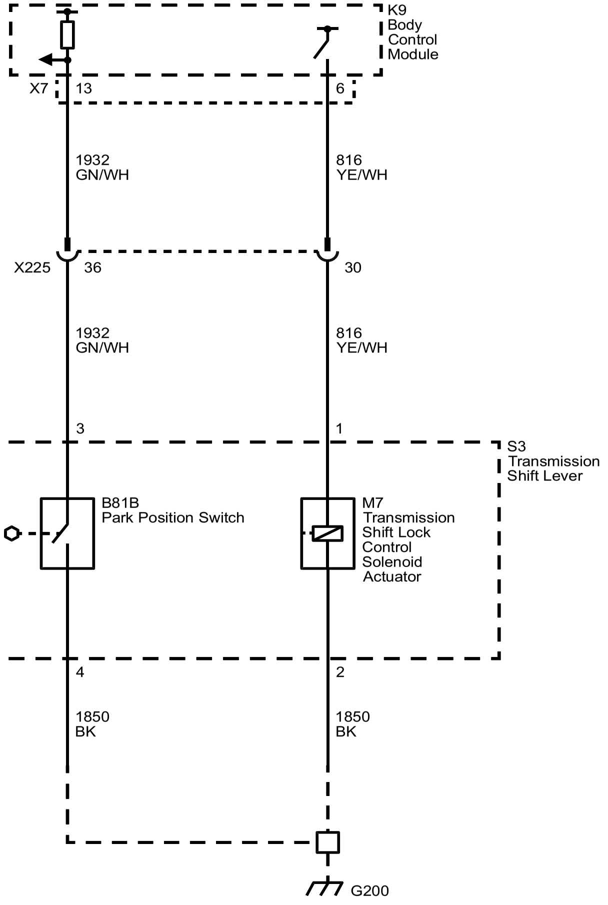
Shift Lock Control

Schematic and Routing Diagrams

Shift Lock Control Schematics (Shift Lock Control)


K9
Body
Control
Module
X7
13
6
1932
GN/WH
816
YE/WH
X225
36
30
1932
GN/WH
816
YE/WH
3
1
S3
Transmission
Shift Lever
B81B
Park Position Switch
M7
Transmission
Shift Lock
Control
Solenoid
Actuator
4
2
1850
BK
1850
BK
G200

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Description and Operation

Automatic Transmission Shift Lock Control Description and Operation

The Automatic Transmission Shift Lock Control System is a safety device that prevents an inadvertent shift out of PARK when the engine is running. The driver must press the brake pedal before moving the shift lever out of the PARK position. The system consists of the following components:

- The Automatic Transmission Shift Lock Solenoid (serviced as the Automatic Transmission Shift Lock Actuator)
- The Body Control Module (BCM)
- The Engine Control Module (ECM)

The BCM controls the voltage to the shift lock control solenoid though the shift lock control solenoid controlled voltage circuit. The following conditions must be met before the BCM will supply voltage to the shift lock control solenoid:

- The ignition is in the ON position.
- The ECM sends an input via GMLAN serial data to the BCM when the Transmission Control Module (TCM) indicates the transmission is in the PARK position.
- The BCM receives a brake applied input from the stop lamp switch.

Since the shift lock control solenoid is permanently grounded, the BCM supplies voltage to the automatic transmission shift lock control solenoid, releasing the mechanical lock on the shift lever as the solenoid energizes. The energized solenoid allows the driver to move the shift lever out of the PARK position. When the brake pedal is not applied, the BCM turns the control voltage output of the shift lock control solenoid OFF, de-energizing the shift lock control solenoid. When the transmission is in the PARK position, the de-energized shift lock control solenoid will prevent shifting as the lever is mechanically locked in the PARK position.

During remote start operation the BCM will de-energize the automatic transmission shift lock control circuit, locking the shift lever in the PARK position

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